This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

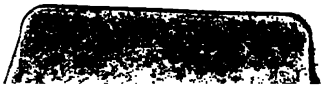
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`



NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL

SCIENCE.

EDITED BY E. GEDDINGS, M.D.

PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE UNIVERSITY OF MARYLAND

Nihil temerè credendum,--
Nihil negligendum.—HIPPOCRATES.

VOL. I.

BALTIMORE:

CAREY, HART & CO.

1835.

JOHN D TOY, PRINTER.

NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL SCIENCE.

VOL. I.] OCTOBER, 1834. No. 1.

ARTICLE I. *Clinical Bulletin of the Baltimore Infirmary.* By the EDITOR.

THE Baltimore Infirmary is under the government of the University of Maryland, and was established expressly, as a Clinical School for the medical department of that Institution. It is situated in a healthy part of the city, in the vicinity of the university, so as to be of easy access to the medical class, during the period of their attendance upon the lectures. It has eight wards, and about ninety beds. Three wards are appropriated exclusively to seamen; three to white male citizens; one to females, and one to blacks. Patients are admitted on paying three dollars per week, which entitles them to all the advantages of the house; and during the winter session of the university, each professor is at liberty to admit a limited number of cases, on charity, when they possess a character of interest for clinical instruction. Many individuals of respectability and standing enter the house for medical and surgical assistance, and most of those who resort to it, besides the seamen, are industrious mechanics and laborers. Since the commencement of the extensive scheme of public works, which have been carried on for the last few years in the neighborhood of Baltimore, a considerable proportion of the patients have been laborers from the several rail roads, many of them even coming from Harper's Ferry, and other remote sections of the works. Amongst these, accidents have been frequent, and during the summer and au-

tumnal months, they furnish numerous cases of fever and dysentery. Many individuals also resort to the institution from remote parts of the state, and from the adjacent portions of Virginia and Pennsylvania, to have important surgical operations performed, and to be treated for important diseases. From these various sources, abundant materials for clinical instruction are furnished, and the institution may be justly considered one of the best clinical schools in the country. The average number of patients in the house at one time, during the present year, has been from sixty to seventy, and the aggregate number admitted in the course of the year, is about seven hundred and fifty or eight hundred.

The affairs of the house are under the direction of a Superintendant, and its internal economy is attended to exclusively, by the Sisters of Charity, who devote their constant and unwearied attention, with a kindness truly sisterly, to the comforts of the sick. The professional services are rendered by two surgeons, and three physicians, consisting of the Professors of the medical department of the university, who attend alternately. Professors Hall and Smith have charge of the surgical department. Professors Potter, Dunglison, and myself, of the medical—the term of duty of each embracing a period of four months. There are besides, four resident pupils, who prescribe for the sick in the absence of the physicians and surgeons, and carry all their directions into effect.

During the winter months, the institution is attended by the Professors of the practice of medicine and surgery, who make their visits daily, accompanied by the students, and deliver clinical lectures on their respective cases twice a week. My term of duty commences on the first of July, and terminates on the first of November, thus embracing the most sickly months in the year, and a period at which there is generally admitted, a great proportion of cases of fever and dysentery. As I propose occasionally to occupy the pages of this journal with some of the most interesting results of the excellent field of clinical experience thus afforded me, I shall offer a few remarks, in the present number, upon some of the diseases which have come under treatment during the first eight weeks of my term of service. As there is no regular case book kept in the house, except the hasty notes made by the resident pupils for their own use, many interesting details, and important facts, must necessa-

rily be lost; but with the assistance of the notes kept by the young gentlemen of the house, who have obligingly furnished me with them, I shall endeavor to make up a report, embracing a few of the most interesting cases.

1. *Gastric, or more properly Intestinal Fever.*

There is perhaps no disease, which presents itself under more numerous shades and modifications, than the summer and autumnal fevers of malarious regions—those of each season have their peculiarities, and even at different periods of the same season, they experience changes, either dependent upon temperature, or other causes, which require the treatment to be varied. They are likewise so much under the influence of local circumstances, habits, occupations, &c. that it is not unusual to find the disease of the same autumn, even within the limited compass of a few miles, displaying itself under a variety of forms, each one exacting some slight difference in the mode of treatment. Hence the clashing, and apparently contradictory descriptions furnished by authors, of the same disease, and the very opposite and dissimilar methods of treatment laid down by them. Hence too, the almost infinity of appellations which have been applied to the disease, most of them predicated upon some accidental phenomenon occurring during its progress. In some seasons and situations, the fevers of autumn are characterised by a high degree of disturbance of the functions of the liver, stomach, and duodenum, giving rise to a copious secretion of vitiated bile, which is ejected in great quantities, both by vomiting and stool, or by intense irritation of the mucous membrane of the stomach and duodedum, together with overwhelming congestions of the liver and the portal circulation generally, and a consequent suspension, or impairment of the hepatic secretion. To this variety of the disease, the denomination of bilious has been applied, and from the alternate remissions and exacerbations which attend it, it has been called bilious remittent fever. This form of fever has been well described by the Greek physicians, and in more modern times, it has been observed so frequently, especially in warm latitudes, and in marshy districts of country, as to give rise almost universally, to the application of the term bilious remittent fever, to the different varieties of the febrile affections of autumn. Much mischief has been produced by this general extension of the term,

and it is particularly important, that it should be restricted to those cases in which there is a marked implication of the hepatic function, or to the bilious fever as it has been described in modern times, by Baillou, Tissot, Fink, Chalmers, Stoll, Burnett, Johnson, Jackson, Annesley, and many of the other writers on the diseases of India, and other warm latitudes.

Another variety of fever, is that in which symptoms of gastric disturbance are predominant. Under such circumstances, the disease falls with its principal force upon the stomach, and frequently upon the upper part of the duodenum. When this latter organ is much affected, there is, besides, in many cases, more or less consecutive disturbance of the liver, giving the disease something of the character of bilious fever. When the disease affects the stomach chiefly, it has been very properly denominated *gastric fever*, or by the proselytes of the Broussaian school, *gastro-duodenitis*. When to the other symptoms, are superadded such as denote a disturbance of the liver, the term *gastro-duodeno-hepatitis* has been employed, by the advocates of the same doctrines, to designate the parts implicated. This variety of fever not unfrequently presents itself under a form of great intensity, an example of which is furnished by the yellow fever, which seems to fall with its principal force upon these three organs.

It should be remarked, however, that the term gastric fever has been employed in a kind of generic sense, comprising all those forms of the disease, the chief seat of which is either the stomach, or any part of the intestines. To such an application of it, there are strong objections, inasmuch as there are numerous cases, in which nearly the whole violence of the disease is sustained by the lower part of the small intestines, the stomach being but slightly affected, and only suffering in consequence of its close sympathies with the principal seat of the disease. This distinction, it is important to observe, in reference to the form of the disease which will form the principal subject of the following remarks, as in it, the sufferings of the stomach have been found to be trifling, compared to those which were experienced by the lower part of the ilium and the cœcum. These two organs, especially the former, have been found in every case which has been examined, to constitute the points upon which the fever inflicted its greatest ravages, the implication of other parts of the system being merely consecutive, and though

often considerable, yet never equalling in intensity, the affection of the lower part of the ilium. Hence, when the disease assumes this form, it is more particularly entitled to the appellation of *intestinal fever*,—a term which has been very appropriately employed by some of the best writers on the subject, and which should be preferred to any other, if the term fever, in its ordinary acceptation, is to be retained; because it more clearly defines the seat of the disease, and consequently, points more directly to the indications to be fulfilled in its treatment.

Besides the terms bilious and gastric, which, as I have previously remarked, have been applied indiscriminately, to all the varieties of the autumnal fevers of malarious regions, they have received various other appellations, predicated for the most part upon some accidental complication observed in their progress. Amongst these, it may be sufficient to enumerate the appellations of mucous, pituitous, typhoid, nervous, ataxic, adynamic, mesenteric, and various others, which have been applied to the same disease, under some one or other of its numerous shades. To the same head, must also be referred several other names, of more modern origin, which have been employed to represent this form of disease: as for example, gastro-enteritis, follicular enteritis, dothinenteritis, iliodicliditis, &c. Those who have adopted these latter appellations, either regard the fever merely as a consequence of local inflammation of the mucous membrane of the alimentary canal, or adopt the opinion, that the inflammation of the mucous follicles of the intestines, and their subsequent pustulation and ulceration, should be considered as a kind of eruption, bearing the same relation to the fever, that the variolous eruption does to the fever which ushers it in. These points have been somewhat fully discussed in the first and third numbers of the Baltimore Medical and Surgical Journal, in which I attempted to furnish an exposition of the general pathological characters and treatment of follicular enteritis, and to which I must now refer for further details, my present object being merely to offer a few remarks explanatory of the character of the intestinal fever, as it has presented itself during the present season.

The first cases of the disease were admitted into the Infirmary early in July, from which time up to the present period, upwards of eighty cases, including some of unmasked intermittent, have been treated. A large proportion of them have been received from the Washington Rail road, the Point of Rocks,

and Harper's Ferry, the subjects being, for the most part, laborers on the Chesapeake and Ohio canal, and the different sections of the rail roads. They have been, with a few exceptions, Irishmen, some of whom have only been a short time in the country, but all much exposed, and irregular in their modes of life. A few of the individuals have been Germans; and besides those coming from the sources mentioned, some have been received from Federal Hill, Fell's Point, and other parts of the city and adjacent country. Those from Fell's Point, have been mostly seamen, who with a few exceptions, had been attacked with the disease after their arrival in Baltimore. It should be remarked, however, that while cases of fever have been thus numerous in the infirmary, owing to the extreme dryness of the greater part of the summer, the city has been unusually healthy.

In its mode of attack, the disease has presented nothing unusual. It has frequently been ushered in by a slight chill, sometimes rigors, followed by pain of the head, loins, and extremities,—a hot dry skin, flushing of the face and eyes, intense thirst, and great restlessness. Few opportunities have presented, however, to enable me to judge of the symptoms of the forming stage, as most of those who have been admitted, had been laboring under the disease for several days, and several of them, for more than two weeks, before their arrival at the infirmary. Disturbance at the stomach, further than a mere loss of appetite, and a sense of oppression, has not been observed in many cases, nor have there been bilious vomitings, either at the onset or in the progress of the disease, except in a few cases, and those for the most part of the intermittent form. In some cases which were seen in the early stage, the remissions were distinct, and the subsequent exacerbations preceded by a slight chill. More frequently, however, there was no chill after the first paroxysm, and the exacerbations, though still well marked, were not followed by so complete a remission as at first.

But as previously stated, few opportunities have occurred of seeing the disease in this form, most of the patients having been laboring under the fever for several days, and frequently submitted to very active treatment, before their admission. They have generally come in, with the muscular system much prostrated, the tongue of a fiery redness upon its borders, contracted and pointed, and incrusted with a thick, dirty, dark colored, or even a brown fur over the whole of the base, and along the

middle, and in a great number of cases, it was as dry and rough as weather beaten leather. A dirty sordes have in like manner covered the teeth in the above instances. In some instances the whole epithelium of the tongue peeled off, leaving it smooth, dry, and intensely red. With these conditions, there has generally been great tenderness upon pressure observed in different parts of the abdomen, and particularly in the right iliac, and the hypogastric regions. In many cases, the tenderness has been more diffused, and proved a source of much uneasiness, while in some, it has been so obscure as to be scarcely perceptible. Some of the cases have been attended with diarrhœa; but this symptom has, in most instances in which it has been observed, only made its appearance at an advanced period of the disease. Dysenteric symptoms have likewise existed in several instances, and when such cases have been harshly treated at the commencement, this complication has been found to be exceedingly formidable, and difficult to control.

Manifest exacerbations have continued to recur in most of the cases, even when protracted, attended with pungent heat, and a general dryness of the surface; extreme dryness of the tongue, even when it was before moist; considerable increase of thirst and restlessness, and evidences more or less strong, of cerebral and meningeal irritation.

Delirium, or other evidences of cerebral determination, have not been frequent in the early stage of the disease, and though the former has not been a very frequent condition in the later stages, in almost all the cases which assumed a protracted character, the irritation, after limiting for some time, its principal ravages to the intestinal mucous membrane, has gradually extended to the nervous centres, giving rise to evidences of disturbed intellect, and the whole train of symptoms which characterise arachnoid inflammation. This secondary complication has generally stolen on insiduously, at first merely revealing itself during the exacerbations; but in a few instances, it has burst forth suddenly, and with extreme violence, characterised by furious delirium, overwhelming prostration, frequent small pulse, muscular tremors, subsultus tendinum, injection of the eyes, and either contraction or dilation of the pupils. At this juncture, the tongue has always been brown and extremely dry and scabrous. In some cases, the implication of the nervous system has been characterised by a kind of incoherence of in-

tellect, or vacant stupidity, seldom so profound, however, except in the most advanced stages of the disease, that the patient could not be easily roused. Tympanites has been observed in a few cases.

A great number of patients who had been under treatment before their admittance, came in in a state of salivation, but with two or three exceptions, the mercurial disease, instead of arresting the fever, aggravated all its symptoms. It increased the tenderness of the abdomen, the dryness of the tongue, the sordes on the teeth, the general prostration of muscular energy,—hastened the development of the nervous stage, and rendered the cases more formidable, and in every respect more difficult to manage. Many who were not salivated, had been so actively treated by emetics and drastic cathartics, especially calomel and jalap, that nearly the same train of mischievous consequences had to be encountered after their admission. Some of those who had been salivated, had deep ragged ulcers involving their lips, tongue, and cheeks, from which they experienced much suffering, and upon one individual who was thus affected, the mercury had so far exercised its pernicious influence, as to give rise to a complete state of anæmia.

The duration of the disease has presented nothing fixed or regular. Some have convalesced in a few days and left the house, while in other cases, the disease has continued with but trifling variations, for two, three, or four weeks, or even longer, manifesting a strong tendency to relapse under the influence of the slightest imprudence in diet.

In those who have died, the mucous glands and follicles of the ilium, have been found in every case, one only excepted, in an intense state of inflammation, and extensively ulcerated. These conditions have been generally found in the lower part of this intestine, near its termination in the cœcum, and in many cases this latter gut, as well as the lower part of the jejunum, have been found similarly affected. The elliptic patches formed by Peyer's glands, have been the parts chiefly involved, and in every instance, except the single one already alluded to, they have been found violently inflamed, much enlarged, and generally extensively ulcerated. These ulcers, in some of the cases, have been so numerous, large, and closely clustered together, as to occupy nearly the whole internal surface of the intestine, and destroy all its tunics, except the peritoneal, by

which alone, the contents of the organ were prevented from being extravasated into the cavity of the abdomen. The glands of Brunner have been found similarly affected; and in most of the cases where ulceration was extensive, the mesenteric glands were much enlarged and inflamed. Numerous patches of inflammation also existed upon different portions of the mucous membrane, and particularly along the tips of its different folds. The lining membrane of the stomach, though more or less inflamed in several cases, has presented far fewer traces of disease, than that of the small intestines. In one case only did peritonitis exist, and in that it was most intense. It was consecutive of previous inflammation of the mucous surface, and besides other lesions of this structure, a large ulcer was found occupying nearly the whole extent of the pyloric orifice of the stomach. In some of the cases, the liver and spleen have been found congested and very much softened; but these are common conditions in protracted acute diseases. In the dysenteric cases, besides the ulceration of the ilium, the mucous membrane of the colon and rectum, throughout nearly the whole of its extent, has been found extensively disorganized, by large irregular ulcers, and nearly the whole surface thickly coated over with a tenacious albuminous deposite, of a deep black color, and so adherent as to be with difficulty detached.

The principal appearances observed in the brain, have been an effusion of clear or bloody serum from the arachnoid membrane, and more or less injection of different portions of that structure.

These are the general phenomena which have been presented by the fever of the present summer, which differs in no very essential particular from that of last year. The cases of the present season have been more numerous than they were during the same period of the last, but they have resembled each other during both, in all their leading features, and in one especially,—their formidable character, and protracted duration.

From the preceding remarks, it may be inferred, that whatever the primary impressions produced by the remote and existing causes of the disease may have been,—whether they began upon the skin, in the nervous system generally, or the internal membrane of the alimentary canal, the direct tendency of the disease was, to single out as it were a portion of this latter structure, upon which to exercise its principal violence.

The changes or modifications of the vital powers which usher in disease are too delicate to be analyzed or appreciated by any powers of observation that can be brought to bear upon them; but when a fever has been once developed, although it may be attended with a general disturbance of the animal economy, it always selects out one or more organs, which become more prominently affected than the others, and which form so many centres, from which the morbid sympathies are propagated to those parts, which sympathise most intimately with the organs first implicated, thus giving extension to the mischief, and constantly superadding new complications. Hence, in nearly all the cases which have been seen during the early stage of the disease, the symptoms arising from the affection of the mucous membrane of the alimentary canal, and especially of the ilium, were predominant. From this point, the irritation radiated to the other organs in the order of their susceptibilities, thus giving rise to the complications taking place in the more advanced stage of the disease, in consequence of the nervous centres, and particularly their arachnoid covering, becoming implicated. In all cases of fever assuming this form, the mucous membrane, and the nervous centres, therefore, constitute the points which the disease selects upon which to inflict its most formidable mischief; the first primarily,—the second consecutively. Other organs, it is true, are more or less disturbed, as must necessarily be the case from the very nature of their relations, yet the degree of their suffering is always trifling, compared to that which is sustained by the parts principally affected. The secretions of the glandular apparatus are increased, diminished, suspended, or altered in quality; cutaneous exhalation is in a great degree interrupted, or it is performed in an unhealthy manner; the action of the heart and arteries is accelerated; the blood is distributed irregularly, and is altered in its properties, and the muscular energies are enfeebled. Still, throughout the entire progress of the disease, the mucous surface of the alimentary canal declares its sufferings by signs which are the most conspicuous and unequivocal; the evidences of its distress are predominant, and even after the cerebro-spinal centres become affected, the indications of mucous irritation, in a great majority of instances, still continue. Cases nevertheless occur, in which the secondary affection of the nervous centres,

may to a certain extent mask, or as it were suspend, the force of the disease in the mucous membrane.

These facts must be constantly attended to in the application of remedies. They prove how improper some of the curative procedures are, which are frequently resorted to in the treatment of this form of fever. If the intestinal mucous membrane is in a high state of irritation and inflammation, from the onset of the disease, the almost indiscriminate employment of active emetics and drastic cathartics, which forms so prominent a part in the common modes of practice, cannot be founded on correct principles, and must often exasperate the disease. True, they frequently succeed by exciting a strong revulsive impression, by promoting copious secretions and exhalations, and giving rise to sedation of the remote organs. Yet, should excitement not be previously reduced to a point which will be compatible with the attainment of these ends, they must necessarily prove mischievous, as they do also, in all cases, when the inflamed surface is perpetually submitted to their irritating influence.

A plan much more consistent with sound principles of pathology, is that which consists in the general or local abstraction of blood, gentle aperients and enemata for removing all sources of irritation from the alimentary canal, external revulsives, cold to the surface of the body, where there is excessive determination of blood, or warmth where it is defective. With these means, should be included cooling and refreshing drinks, a mucilaginous diet, and an absolute avoidance of every source of irritation. When local depletion is demanded, it should be practised by leeches or cups, applied as near as possible to the organs most affected, and the revulsive remedies should be applied over the abdomen, to the head or the extremities, according to the nature of the case. The application of cold should be either general or partial, according to the degree of the excitement, and the extent of its diffusion. When the heat is intense and equally diffused, the cold affusions, if proper depletion has preceded, should be preferred. But where it is more moderate, and unequally distributed, ablutions or sponging will be the most elligible method of employing cold. When the system has been reduced to the revulsive point, an impression should be maintained somewhere upon the surface of the body, to counteract the tendency of the fluids towards the suffering organs. And where there are remissions and exacerbations, as the latter are always brought out

by the gradual accumulation of irritation, and consequently, of the circulating fluids in the organs most affected, such an event may be often prevented, or its effects mitigated, by inviting the circulation to the surface, in anticipation of the exacerbation, by means of strong revellents, as cups, blisters, sinapisms, &c. By adopting these principles, I have often seen a few cups to the abdomen or back of the neck, or a blister to the same parts, or to the inner surface of one thigh, either completely avert the exacerbation, or render it comparatively mild. Nor are these means useless after the exacerbation has taken place. By determining actively to a new point, they break up the internal irritations and congestions, upon which the paroxysm depends, and bring it to a speedy termination. A few cups applied to the epigastrium, under such circumstances, or what is still better, a number of leeches proportioned to the condition of the patient, often quiet all the sufferings of the individual, excite a free and equable perspiration, render the tongue moist and expanded, and induce a state of comfort and tranquillity, where all before was suffering and despondency.

As my object is merely to speak of general principles, and to adduce a few facts corroborative of them, I must refer for further details, in illustration of the principles upon which my practice in such cases is predicated, and the manner in which it is carried out, to the papers in the first and third numbers of the Baltimore Medical and Surgical Journal already alluded to. The following cases, out of many others of a similar character, are reported with the view of showing the character of the disease, and the general method pursued in the treatment of it.

The first case demonstrates very clearly the advantages of the cold affusions.

Case I. Charles F. Langstaff, aged 28, was admitted into the Baltimore Infirmary, on the 11th of August, 1834. He had been sick two days before his admission.—His first symptoms were severe pain of the head; nausea; pain and tenderness of the epigastrium, high fever, and constipation of the bowels. He had been freely bled (according to his own report to thirty ounces) without relief, and had taken a dose of salts, and afterwards a drop of croton oil, which operated freely.

At the period of his admission, he was laboring under intense fever:—his skin was hot and dry; his head acutely painful; his pulse strong and active; his tongue covered with a whitish fur,

which was disposed in patches; his bowels constipated, and the epigastrium painful, and tender on pressure.

Under these circumstances, he was submitted to the cold dash, which immediately subdued all the urgent symptoms. The excitement, however, recurred in a short time; but by repeating the dash twice, in the course of two hours, all his unpleasant feelings were effectually subdued, and after the administration of a purgative enema which operated freely, and the application of cups to the back of the neck, he fell asleep, and did not awake until next morning.

Aug. 12th. Feels well—Ol. Ricini, which operated three times—free of fever—skin moist and pleasant—stomach and head relieved—no tenderness of the epigastrium on pressure—six o'clock P. M. slight exacerbation—tongue still furred—took a gentle alterative aperient at night.

13th. Free of fever. Sulph. Quinine.—He had no recurrence of his paroxysm, and from this time convalesced rapidly.—*Reported by Mr. Thos. A. Healey.*

Remarks.—This case was received early, yet not until after active remedies had been employed without contributing much to arrest its progress. Already had evidences of gastric and intestinal irritation displayed themselves, and it is highly probable, that if the flame had been fed by the reiterated irritation of drastic cathartics, it would have gone on to assume a much more formidable character. The system was in that intense state of excitement, when cathartics could neither produce secretions, or excite revulsions; consequently, there was no indication for their employment. All that was requisite to be done in the way of evacuating the bowels, could be better accomplished by an enema, or a mild laxative. The former was resorted to, and produced the effect. The indication was clearly to subdue excessive excitement, and as general bleeding had been already pushed to a liberal extent, the young gentlemen very properly resorted to the next most effectual means of attaining that object;—the application of cold and the local abstraction of blood. The first was administered by affusion; yet notwithstanding its effects were prompt, the erethism of the nervous system was so great, that the excitement was only subdued effectually, after the employment of the dash three times, in the short space of two hours. To have stopped short of the attainment of the full effect of the remedy, would have been to deprive the patient of the perfect

relief which it was capable of affording, and which was finally realized, by repeating it as long as the necessity continued to recur. The revulsive and depletory effects of the cups were also no doubt beneficial, and after a perfect intermission was obtained, the quinine, administered in large doses, tended to put a stop to the paroxysmal character of the disease, and hasten convalescence.

The following is a case of a different kind.

Case II. J. Nealis, laborer, aged 27, was admitted August 30th, at five P. M. Has been laboring under fever eight days, at the Point of Rocks, and has taken one dose of calomel, followed by salts.

On the night previous, he had been compelled to sleep in the open air, which was damp and chilly, and on the day of his arrival, had travelled seventy miles. He is now much oppressed, and his energies prostrated; his countenance ghastly; his pulse feeble; tongue coated with a thick dirty fur; bowels constipated, and extremities cold.

Eight P. M. Since he has been in bed, his skin has become hot, and his pulse fuller; but his restlessness and sense of oppression are very much increased. There is also slight tenderness on pressure over the abdomen; eight cups to the abdomen; Ol. Ricini ʒ i.—effervescent draught every two hours during the night, the skin to be constantly sponged with cold water, as long as the heat continues.

Aug. 31. Eight A. M. He is much better—the oil not having operated, the dose directed to be repeated, and its operation promoted by an enema in the afternoon.—Eight P. M. The medicine has operated, and afforded great relief to the patient. His evening exacerbation was much slighter than usual—the cooling regimen to be adopted during the night.

Sept. 1. Eight A. M. His condition is very much improved, and the expression of his countenance is quite lively. His tongue is much cleaner, and his mouth is slightly sore, from the dose of calomel which he took before his admission.—Enema to be repeated in the afternoon.—Eight P. M. Exacerbation very slight—tongue cleaning rapidly, and he complains of being hungry.

Sept. 2. Improvement still continues—enema to be repeated—no evening exacerbation.

From this time forward, his convalescence was progressive,

and it was only found necessary to give him occasionally, a gentle aperient, and to apply dry cups to his head to relieve some pain and heaviness of which he complained.—*Reported by Mr. S. G. Baker.*

Remarks.—When this man came into the house, his case presented an alarming aspect. He had been sick for several days,—had been much exposed, and travelled a distance of seventy miles, in a condition which was so formidable, as to occasion him to be refused admission into any of the houses at the Point of Rocks, or on the way, for fear he should die on the hands of their inmates. His prostration and exhaustion at the period of his arrival rendered him unable to help himself, and his general ghastly aspect, feeble pulse, and cold extremities, showed plainly that the organs were already suffering severely. The state of his tongue, and the abdominal tenderness, pointed to the mucous membrane of the digestive organs as the principal seat of the irritation, and the condition of the nervous and muscular system, showed clearly, that the nervous centres were about to become seriously involved. A timely resort to revulsives and local depletion, however, and the employment of other means calculated to subdue excitement, arrested at once, the further progress of the mischief, and by unburdening the affected organs, so far restored their recuperative energies, that a rapid convalescence ensued with very little more assistance. Such cases are too often evacuated by emetics and cathartics, at the commencement, to an extent which is injurious, and when the organs become so far embarrassed, either by the disease or the conjoint influence of it and the remedies, as to give rise to the fallacious symptoms of debility which the individual presented at the time of his admission, stimulants are poured in with a liberal hand, to sustain what is regarded the sinking powers of life, but what in reality requires a strict antiphlogistic treatment to remove it. Excessive purgation at the commencement of a fever, and excessive stimulation towards its conclusion, I feel assured, from repeated observation, has done more mischief, than any of the multifarious modes of practice that have ever been employed in that class of affections.

Case III. James Grinum, seamen, aged 20, was admitted July 28th. Has been sick five days, during which time he has taken several cathartics—complains of great pain of the abdomen, much tenderness on pressure over the stomach and region

of the colon, and frequent watery evacuations pass from his bowels involuntarily. There is likewise pain of the head and back, small frequent pulse, and hot dry skin.

Cups to the abdomen, which produced a most happy effect—Submuriat. Hydrarg. ℈ i.—Effervescing draught every two hours; skin to be sponged during the night with cold vinegar and water.

29*th.* Feels much better. Had but one evacuation during the night; pain in the abdomen greatly relieved; complains of uneasiness in the stomach; tongue expanded and covered in the middle with a yellowish fur; skin moist.—Submuriat. Hydrarg. gr. x.

Eight P. M. Considerable exacerbation; pain in the head, back and loins; great oppression at the precordia; skin hot and dry; tongue coated with a brown fur; great thirst and restlessness; calomel operated twice; operations of a bilious character—Effervescing draught every hour; cold to the head; body to be sponged.

30*th.* Not so well; complains of great pain of the loins, slight nausea and tenderness of the abdomen on pressure; his gums are slightly affected by the mercury; bowels free; blister to the abdomen.—Effervescing draught continued.

Nine P. M. Feels much better; exacerbation slight; has had two evacuations during the day, and only complains of the blister.

31*st.* The improvement continues; rested well; no fever; the tongue coated with a whitish fur, except at the edges, which are clean and moist; has had one evacuation from the bowels; no excitement of the pulse.—Effervescent draught; sinapisms to be applied to the lower extremities, in anticipation of the exacerbation.

May 1*st.* Much better; rested well last night; free of fever; the exacerbation of yesterday was very slight; has had one evacuation from the bowels; tongue cleaning.—Blister to the inner side of one thigh, in anticipation of the next paroxysm.

2. Is improving rapidly; passed the night comfortably; escaped the exacerbation yesterday; bowels open; tongue slightly furred.—Sulphate quinine, grs. v. every two hours.

3. He continues to improve, and from this time required no further treatment, except a few doses of quinine.—*Reported by Mr. Alexander H. Bayly.*

Remarks.—The analysis of this case presents several points of interest. At the period of his admission, the pain and tenderness of the abdomen, and the involuntary watery dejections from the bowels, shewed that the mucous membrane of the alimentary canal was suffering severely.—The pulse was too feeble to justify general blood-letting; recourse was therefore had to cups, for the purpose of drawing blood locally, and creating a strong revulsive impression, with the intention of transferring irritation from the part most affected. The result, as remarked by Mr. Bayly, was most happy. A scruple of calomel was administered with the hope of making a strong impression upon the stomach and duodenum, thus inviting free secretions and exhalations, and transferring irritation from the mucous membrane of the ileum cœcum and colon, which, from the diarrhœa and other symptoms, were conceived to be the parts most severely affected. Some relief was obtained, but from what occurred, it is somewhat questionable if it was not mainly attributable to the influence of the cups; for it will be found, that after the administration of another dose of calomel, of ten grains, that the exacerbation was severe; the pain of the head and back considerable; the skin very hot and dry; the precordial distress great, and the tongue covered with a brown fur, manifesting a disposition to become dry. At this juncture, a large blister was applied to the abdomen, and again the good effects of revulsion were fully realized; for, from this period, a striking amelioration was observed, and by repeating the revulsion, first by sinapisms, and then by a blister to the inner side of one thigh, convalescence was soon established, and the patient recovered rapidly. The cold sponging, which in this, as in all the other cases, where the skin was hot, was constantly employed, produced a very happy effect, by soothing the nervous erethism, and quieting excitement.

Case IV. Humphrey Martin, laborer, on the Rail-road, aged 30, was admitted July 17th. Has been sick four days—and says that his first symptoms were, pain of the head, shoulders, back, and loins; a general uneasiness and constipation of the bowels. He has taken some purgative medicine. He now complains of severe pain of the head; his bowels are constipated; his tongue is coated in the middle with yellowish fur inclined to white, while its edges are red. His pulse is full and tense, skin hot and dry; the conjunctiva of the eye of an icteric hue; the thirst

intense, with extreme restlessness and precordial oppression.—Venesection to fifteen ounces; Submuriat. Hydrarg. ℈j.; soda powder every two hours; cold to the head; body to be constantly sponged with cold water.

Nine P. M. The medicine has operated twice; stools dark colored; feels much better; skin moist.—Continue soda powders, barley water for diet.

18*th.* Much relieved; head easy; pulse soft. Ol. Ricini.—In the evening there was an exacerbation of fever, and tenderness of the epigastrium on pressure; has had two evacuations from the bowels in the course of the day; cups to the abdomen; body to be sponged with whiskey and water.—The drawing of the cups produced immediate relief.

19*th.* Improving—Submuriat. Hydrarg. gr. v. Pulv. Rhei gr. x. three times a day—soda continued.

20*th.* The whole body intensely icteric; tongue slightly coated with a thin yellow fur; urine high colored.—Ol. Ricini, continue other medicines.

21*st.* Improving rapidly; mouth slightly affected by the mercury; no exacerbation; bowels open; pulse nearly natural.—Pl. Hydrarg. Extract. Alk. Jalap. ā ā gr. v. night and morning.

31*st.* Discharged perfectly well.—*Reported by Mr. A. H. Bayly.*

Remarks.—This case presents an example of another modification of the disease. The mucous membrane of the alimentary canal was the principal seat of irritation, yet it was chiefly confined to that portion of it which lines the stomach and duodenum, extending its influence from thence to the liver, disturbing the function of that organ, and thus giving rise to the icteric condition of the whole system. It was, in short, a case of gastro-duodenitis, with hepatitis superadded, the affection of the liver being consecutive to that of the mucous membrane, and dependent upon the extension of the irritation along the lining membrane of the bile ducts, which is directly continuous with the mucous membrane of the duodenum. The high state of excitement under which the patient was laboring, at the period of his admission, clearly indicated the necessity of abstracting blood, and the operation was accordingly attended with considerable relief. Excessive action being thus reduced, a large dose of calomel promised advantage, in virtue of its power of promoting copious secretions from all the adjacent parts, and exciting re-

vulsion from the liver. Still, though apparently beneficial, it did not afford complete relief; for on the subsequent day, there was tenderness of the abdomen on pressure, with a smart exacerbation of fever in the evening. To relieve this, cups were applied, and their beneficial influence was strikingly manifested. The amelioration of the symptoms was immediate, and from this period, the improvement was progressive. The internal irritations and congestions seemed to be at once broken up by the full revulsive impression they excited, and it was only necessary afterwards, to persevere in a rigid diet, and to excite by gentle alteratives, the secretory action of the glandular and follicular apparatus.

Case V. Michael Logan, laborer, aged 25, was admitted, August 15th. Has been sick five days; slight mercurial fetor perceptible in his breath; he complains of pain of the head and giddiness; the pulse is full but compressible; tongue coated with a thick dirty fur, and red at the point; bowels constipated; skin hot and dry.—Cups to the back of the neck; Ol. Ricini; ice to the head, and the usual cooling remedies.

16*th.* But slightly improved; evening exacerbation as violent as on the preceding day; sleeps almost constantly, and is not easily roused.—Ol. Ricini; cold to the head, and sponging continued.

17*th.* No improvement in the symptoms; tongue dry at the point; eyes considerably injected, and present a pinkish suffusion.—A blister to the back of the neck.

18*th.* The head apparently relieved in a slight degree; bowels relieved by an enema; cups to the abdomen.

19*th.* Not much alteration—is still sluggish and heavy; tongue continues furred, and becomes dry at the tip during the exacerbations.—Cooling regimen continued.

20*th.* No improvement.—A blister to the abdomen; Submuriat. hydrarg. gr. x.

21*st.* His tongue is much cleaner.—Ol. Ricini ʒ i.; cold applications continued.

22*d.* Improving slowly.—Massa pil. Hydrarg. gr. v.; Extract Colocynth. comp. gr. x., at night.

24*th.* Still better—bowels rather inactive.—The same prescription repeated.

From this time convalescence proceeded without interruption, and he was discharged well, on the 4th of September.—*Reported by Mr. S. G. Baker.*

Remarks.—The case of this man, presents an example of the disease, in which there was considerable congestion of the abdominal organs, and a strong tendency to serious embarrassment of the nervous system. Indeed this latter tendency was so strong, at the period of his admission, that for two or three days afterwards, the principal attention was directed to the brain, while the affection of the mucous tissue of the stomach and bowels, and the organs directly associated with it, were too much neglected. This was no doubt the primitive seat of the disease, the affection of the head, and of the nervous system generally, being only consecutive, and dependent upon an extension of irritation from the mucous membrane, through the ganglionic nerves, to the cerebro-spinal axis. Hence it will be seen, that although cups, blisters, and cold applications were directed to the head, to overcome the embarrassment of the brain, not much benefit was realized, until more attention was directed to the abdomen. The tongue still continued furred and dry at the tip, and the exacerbations were not interrupted or abated in violence. The irritation of the gastro-intestinal mucous membrane was so considerable, and was associated with such extensive congestions of the internal organs, that even the strong revulsive influence of cups was not sufficient to break it up, and it was only after they had prepared the way, that the operation of a large blister laid upon the abdomen, succeeded in producing that effect. The result was also favored, in a considerable degree, by the calomel, which was administered at this period, and which by eliciting a free secretion from the mucous surface, and from the congested liver, produced a good effect.

Case VI. Edward Dunn, aged 30, admitted August 4th. Has been sick eight days.—Was first attacked with pain of the head, and the ordinary symptoms of fever.—Is now affected slightly with mercury.—His symptoms at present are, dull confused pain of the head; great stupor; tenderness of the abdomen on pressure; tongue dry, furred in the middle, and red upon its borders; pulse frequent, small, and feeble; skin hot and dry, bowels constipated for the last two days; articulation exceeding difficult, and scarcely intelligible.—Cups to the back of the neck and abdomen—a blister to be afterwards laid upon the latter region; cold to the head; soda every two hours; purgative enema.

5th. Rather worse—great stupor and slight delirium—articu-

lation even more difficult than yesterday—the other symptoms nearly the same—had two passages from the bowels in bed.—Blister to the back of the neck; Massa Pil. Hydrarg. gr. iij.; Pulv. Ipecac. gr. 1. at night.

6th. The delirium and stupor continue; muscular tremors incessant; pulse very weak and frequent; tongue dry and brown; extremities cold; cannot reply to questions applied to him.—Blister to one thigh, sinapisms to the legs and arms; Liq. Acetat. Amon. ʒ ss. Spits. æth. Nitros. ʒ i. every two hours; cold applications to the head continued; also, Pill of blue Mass and Ipecac. at night.

7th. Much better; delirium nearly gone; stupor and muscular tremor much abated; tongue and skin moist; two passages nearly natural.—Prescription of yesterday continued.

8th. Still continues to improve; but there being some evidences of cerebral determination, a blister was applied to the other thigh.—The former prescriptions continued.

9th. The stupor is entirely relieved; tongue cleaning, and the individual free of fever, and cheerful.

12th. Fully convalescent. He finally left the house perfectly recovered.—*Reported by Mr. Thos. A. Healy.*

Remarks.—This case presented a highly formidable character, and at one time, threatened to terminate fatally, in despite of all the remedies employed. The disease had already seized violently upon the nervous system, and for two or three days, symptoms of arachnitis were predominant. By the revulsive influence of cups and blisters, and the antiphlogistic remedies employed in the preceding cases, all the difficulties were finally surmounted, and health returned. The encephalic implication was clearly secondary, but although towards the close of the disease, its manifestations became more conspicuous than those of the mucous tissue of the stomach and intestines, the latter still maintained a character of considerable intensity, until the irritation was broken up by antiphlogistics and revulsives. The case was one of a very interesting character, but it is much to be regretted, that only hasty notes were taken of it at the time, and that it is only possible, in consequence, to furnish a very imperfect sketch of its characters.

Case VII. Luke Riley, Point of Rocks, aged 28, admitted July 28th.—Has been sick ten days, during which time he has taken three doses of calomel and jalap, one of tart. emetic,

and this morning, a dose of salts. He now complains of pain of the head and abdomen, and considerable nausea. His pulse is frequent and full, though compressible; tongue covered with a whitish fur, and red upon the borders; skin hot and dry; thirst urgent, and jactitation.—Cups to the abdomen; soda every two hours; barley water for drink.

29th. Some improvement—had four evacuations during the night. Pain of the head relieved; stomach composed; pulse frequent, but soft; skin soft; tongue coated in the middle with a yellowish fur; edges red.—Soda water; Submuriat Hyd. gr. x. just before the exacerbation.

8, P. M. Exacerbation violent—tongue dry, covered in the centre with whitish colored patches; borders intensely red—has had one moderate evacuation from the bowels to-day—great irregularity in the distribution of the blood—head, thorax, and abdomen very hot and dry—extremities cold as clay. Sinapisms to the extremities; cold to the head. 11, P.M. Laxative enema, which operated freely.

30th. Tongue dry and covered with a brown fur; great thirst; passed a very restless night.—Effervescing draught every two hours; blister to the abdomen.

8, P.M. Considerable febrile excitement—pain in the head; tongue dry; sordes on the teeth; skin hot and dry; thirst urgent; bowels open.—Soda every two hours during the night; cold to the head.

31st. Rested tolerably well; tongue not so dry; pulse frequent and soft; three evacuations during the night.—Soda continued; Submuriat. Hydrarg. gr. iij.; Camph. gr. i. every three hours—blister to the back of the neck.

August 1st. Feels better; tongue hot and not so much furred; complains of no pain; exacerbation very slight; skin moist and cool.

2d. Rested very well—free from fever. Bowels open once in the course of the night.—Sulph. Quinine, gr. v. every three hours.

3d. Relieved from all pain; no fever; pulse nearly natural.—Quinine continued.

From this time, he continued to convalesce, there being no recurrence of any unpleasant symptom.—*Reported by Mr. A. H. Bayly.*

Remarks.—This was also a very bad, yet a very interesting

case. In its leading traits, it resembled most of those which have been reported, and only differed from them in the greater intensity of its symptoms. An avoidance of perturbating remedies internally, however, and the diligent and persevering employment of antiphlogistics and revulsives, produced the most happy effects, although at one time the symptoms wore an alarming aspect.

ART. II. *Observations on Staphyloraphy, or Palate-Suture.* By N. R. SMITH, M. D. Professor of Surgery in the University of Maryland.

WE are undoubtedly indebted to Roux for having first introduced this operation into our systems of operative medicine, although it had unquestionably been several times performed previous to 1819, when he first accomplished it. At all events the operation is, as Velpeau declares, "a tous égards, une decouverte entièrement française."

It is not to be supposed that an operation so recently introduced, and one at the same time so difficult of accomplishment has yet become by any means perfect in its mode of execution. The formidable and complicated array of instruments deemed necessary for its performance, sufficiently confirms the remark.

Whoever simplifies an operation, and supersedes the use of complex and expensive instruments, renders no small benefit to surgery. Were all the instruments heretofore used, described in modern works, the student might spend his pupilage in learning their names. It is said that,

> "All the rhetorician's rules
> Teach nothing but to name his tools."

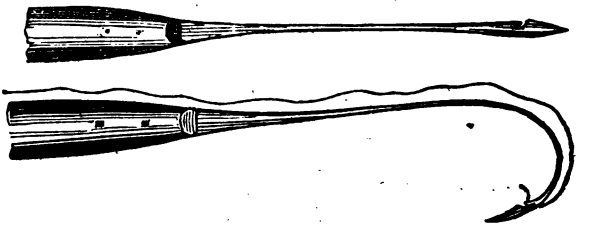
This would be no small part of the task of the surgeon did we not constantly seek to simplify our apparatus.

The instruments employed by Roux, in executing this operation, are certainly an "apparatus major," and the very sight of them is enough to fill us with dread of the difficulties and embarrassments which they are designed to overcome. Those ingeniously devised, and successfully used, by Dr. A. Hosack, of New York, are certainly liable to the same objection.

Having been twice called upon for the performance of this operation by persons from abroad, who could not remain until I procured the instruments which I then had not, I have been under the necessity of using more simple means, and I have

succeeded with so much facility that I am confident I shall never employ any other.

The only instrument, besides those found in the ordinary pocket case, at all necessary for the execution of staphyloraphy, is the needle represented in the accompanying cuts; and it is so simple an instrument that I made the first with my own hands in a few minutes. It is a needle having a permanent handle, its point a little broader than common, and bent from the point into a semicircle, the radius of which is about half an inch. Instead of having an eye near the point, as commonly, this form of needle has merely a notch upon one of its edges. This notch passes obliquely inward and backward from the point, reaching the centre of the blade of the needle. The blade, just anterior



to the notch, is broader than it is behind it, so that when the needle is thrust through the soft parts, the posterior angle of the notch passes through without impediment. This needle is armed by simply laying the ligature into the notch—the thread being of such size that it accurately fits it, and waxed so as to make it slightly adhere.

This little instrument is employed in the following manner. One end of a long ligature is laid into the notch of the needle. The patient being placed in a convenient posture, and the jaws kept widely expanded by the insertion of a cork between the molar teeth, the surgeon introduces the needle into the mouth—carries its curved portion behind the cleft palate, directing its point behind the middle of the uvula. He then brings forward the instrument, so as to thrust its point from behind forward, through the body of the uvula. If the uvula does not furnish resistance enough to enable him to do this with ease, he may seize its point at the moment with a pair of slender forceps. As soon as the point of the needle is brought fairly through, and pushed forward so far that the thread in the notch appears, the operator may withdraw the needle from the part with a slow mo-

tion, and the thread will generally slip with ease from the notch, and be left in the wound. Or that this may occur with the more certainty, the thread, when it appears through the wound, may be seized with forceps, or small hook, and disengaged from the notch.

In a manner precisely similar, another ligature is to be passed through the border of the cleft palate, about half an inch above the former. In many cases a third ligature may be inserted at the same distance above the last; but it is better that this should not be attempted when it is manifest that very strong traction of this last ligature will be necessary to bring together the opposite margins. The ligature would then give rise to much irritation, and not only fail to effect union where it is applied, but embarrass and perhaps defeat the process of adhesion in the parts included in the other ligatures.

The next step is the paring of the border of the velum. This I have accomplished with great ease by seizing both ends of the ligature, with which the uvula is transfixed, and with them pulling the uvula forward. This will render this portion of the velum nearly horizontal, and the operator may easily pare its border with scissors, either straight or having a slight lateral curvature. Or the surgeon may use a straight probe-pointed bistoury for this purpose; but the ligature must then be held by an assistant, and the surgeon must seize the inner border of the uvula with slender forceps. Care is to be taken, in accomplishing this step, not to cut the upper ligatures; and this may be avoided without difficulty by thrusting them well back behind the velum.

The surgeon next proceeds to pass the other extremities of his ligatures through the opposite portion of the velum. This is effected in precisely the manner described above. To pare the border of the velum on this side, however, it is necessary to proceed a little differently. The loop of the lower ligature, which now passes behind the velum from one side to the other, is to be hooked forward and drawn out of the mouth. This loop is then to be held by the operator, together with the end of the ligature on the side upon which he is now operating. Still greater care is here necessary to avoid cutting the ligatures above, while using the scissors or bistoury.

The concluding step of the operation is the tying of the ligatures. This is effected with great ease by forming the surgeon's

knot with the ends of the thread—then twisting each end around the second finger of each hand, and sliding each index finger along the ligature deep into the mouth, and thrusting outward with each, so as to close the knot. The knots being all formed, the ends of the ligatures are to be cut close to them.

The patient, who should have taken food and drink immediately before the operation, is now to be instructed not to attempt to swallow either liquids or solids until the calls of nature become imperative, and then he may be fed with a small quantity of panada. He must also be forbidden for the time to exercise the organs of speech, and must be kept in a perfectly tranquil state. The ligatures should be cut away on the fourth day.

When, in the case in which we operate, the fissure traverses not only the soft palate but also the bony portion, as is usually the case, the operator of course does not expect to close the anterior portion of the fissure. If, however, he succeeds in effecting pretty firm union of even a portion of the velum palati, near the uvula, he has accomplished an important object, and has achieved the principal end of the operation. It is now easy, by the employment of a suitable obturator, to close the anterior portion of the opening. The material of which I have constructed this has been ivory, and it has been made with ease by the ivory turners. It resembles two concave buttons applied to each other by their convex sides, one being a little larger than the other. There will of course be, between their borders, a groove of some depth, and about one sixth of an inch wide at the circumference. The concave sides are excavated so deeply that the instrument is quite thin and light. It is to be inserted into the opening which it is designed to close, precisely in the manner that the stud of a shirt is inserted into the button-hole; and it maintains its place in the same manner as does the stud, the contractile border of the soft palate sinking into the deep, wide groove at its circumference. In introducing it, the smaller side of the obturator is to be placed upward and pressed obliquely through the opening. If its size and form are well adapted, it immediately assumes its position and maintains it.

I have performed staphyloraphy in two instances. In the first I did not ultimately succeed, although union existed at the time that the ligatures were cut away. A high degree of inflammation occurred in the fauces, and the palate was severed the next day by ulceration. The patient would not allow me to repeat the attempt.

In the second case I succeeded with ease. The band of union, however, was not very broad; but it was sufficient to enable me to introduce the obturator in such a manner as to render the palate perfect. The patient immediately spoke with far more distinctness, and felt but little inconvenience from the pressure of the instrument. Whether it has continued to serve him thus well, I am as yet unable to say, as I have not since heard from my patient.

Note.—An instrument similar to that above described, but used for different purposes, I saw in the hands of my friend Dr. Phelps, of Vermont.

Art. III. *Excerpts from the Case Book.* By the Editor.

Case I. *Complete suppression of urine from contusion, and obliteration of the membranous part of the urethra—puncture of the bladder above the pubis—operation for the re-establishment of the urethra—cure.* Thomas Oliphant, aged 28, by trade a carpenter, was admitted into the Baltimore Infirmary, on the 24th of August, 1832, laboring under a total suppression of urine, which had existed about forty-eight hours. His bladder was distended into a large round tumour, which projected considerably above the symphisis pubis; his whole abdomen was extremely tender to the touch; his pulse frequent and small, and his skin covered with a cold clammy sweat. His whole aspect indicated extreme suffering, and his condition excited much apprehension for his safety.

The account furnished by himself of the origin of his disease was, that some weeks before, whilst engaged in his occupation, he slipt and fell from a height, astride of the edge of a plank, which struck him across the perineum, immediately in front of the anus, bruising the parts violently, and occasioning a temporary stoppage of his urine. From this latter he partially recovered in a few days, in proportion as the inflammation subsided; but although able to relieve his bladder, the urine did not flow freely, and he frequently experienced considerable difficulty in passing it. After the lapse of some time this difficulty increased, until it finally amounted to a complete suppression, to obtain relief from which, he entered the Infirmary in the condition already described, unsuccessful attempts having been previously made by his medical attendant to pass the catheter.

On passing an instrument down the urethra, I found the obstacle to be situated immediately behind the bulb, and in the membranous portion of the canal, where the parts seemed to be much indurated, and presented a solid point of resistance both to the instrument and the finger. This induration seemed to reach backwards to the extent of several lines. Various attempts were made to overcome the obstacle, but all of them were fruitless. The patient was then put in a warm bath and bled ad deliquum, after which the attempts to pass the catheter were renewed, but with no better success. Laudanum was administered in large doses both by the mouth and anus, but still the obstacle could not be surmounted. The patient was then left for a couple of hours, with the direction to keep the whole abdomen covered with warm anodyne fomentations, and to have a large anodyne enema. On my return, I renewed the efforts to introduce the catheter; but the obstacle was still as formidable and unyielding as before. The sufferings of the patient being extreme, and his danger hourly increasing, I determined to resort immediately to the puncture of the bladder; and as there was no trocar at hand by which the puncture could be made in perineo, I proceeded to perform the operation above the pubis, in the following manner:—A sharp pointed bistoury was thrust directly backwards into the bladder immediately above the symphisis pubis and upon the lower part of the linear alba. A female catheter was then conducted along the blade, through the opening, while the knife was withdrawn simultaneously. The urine was drawn off through the catheter, which was fixed in its situation by means of tapes attached to its eyes and passed round the body. The relief was immediate, and continued, the plug of the catheter being from time to time removed, to draw off the urine whenever it accumulated.

From this time the patient was left to quietude, and such treatment as was calculated to subdue the irritation excited by the disease and operation, until the third day, when every thing being favorable, renewed attempts were made to overcome the obstacle in the urethra. The ordinary methods having been perseveringly tried without effect, I determined to resort to an operation in perineo for the re-establishment of that passage.

The patient being placed in a convenient position, with his thighs flexed upon the pelvis, a silver catheter was passed down to the obstacle in the urethra, where it was held firmly by an

assistant, in such a manner as to make its extremity project a little in the perineum, in order that it might serve as a guide for the knife. An incision was then commenced upon the raphe of the perineum, immediately behind the bulb of the urethra, and conveyed backwards in the direction of that canal, as near as possible to the verge of the anus. The skin and integuments being thus divided, I dissected down cautiously upon the end of the catheter, to reach which, it was found necessary to divide a part of the bulb. This point gained, and the direction of the natural course of the passage thus ascertained, the dissection was cautiously continued backwards, through the indurated tract of the obliterated membranous portion of the urethra, with the object of reaching the open portion of the passage posterior to the obstacle. This was not accomplished until the anterior extremity of the prostrate gland was reached, where after some little impediment, the point of the catheter was insinuated into the canal and conveyed immediately into the bladder.

There was no vessel divided requiring a ligature, and after sponging the parts dry, the patient was put to bed, with his thighs placed close together, and the catheter properly fixed in his bladder by means of tapes and a bandage. On the second day after the operation, the silver catheter was withdrawn, and an elastic one introduced without difficulty. Only a small quantity of urine flowed through the wound, and the only subsequent attention requisite was, to change the instrument from time to time, whenever it became foul or obstructed.

The natural course of the urine being thus established, the female catheter which had been introduced above the pubis, was removed, and that aperture closed in two or three days. The wound in the perineum healed kindly, and the individual, after remaining in the house some time to ensure the permanent permability of the urethea, was discharged on the 28th of October, perfectly cured.

The cases in which it is necessary to puncture the bladder, for the relief of suppression of urine, are comparatively few, and the resources of modern surgery have so multiplied means of relief under such circumstances, that that operation is now seldom performed. In the present case, however, there was only one other resource;—the lancet pointed urethra stilette, and that under the circumstances, a considerable extent of the urethra being obliterated, could not have been used, except at considerable

hazard of its deviating from the natural route of the passage and not reaching the bladder, or at least, the posterior portion of the urethra. For the purpose of dilating a stricture of limited extent that instrument may be advantageously employed, yet it requires an accurate knowledge of the parts, and a practised hand. In all cases of extensive obliteration, the incision from the perineum is a much safer operation and should be preferred.

Case II. *Necrosis and Exostosis of the shaft of the os femoris succeeding a compound comminuted fracture—operation—cure.* Arthur O'Conner, aged 28, was admitted into the Charleston Alms House Hospital, on the 23d of January, 1830, to be treated for exostosis and necrosis of the femur. About three years before, in a fit of intoxication, he threw himself from the fourth story window of a house, upon the pavement, and received a compound comminuted fracture of the thigh. His recovery was protracted, and only took place after much suffering from profuse suppuration, and the discharge of several fragments of bone, some of them of considerable size. At the period of his admission, he was able to walk upon the affected limb, which was, however, considerably shorter than the other. The inner side of the thigh presented a considerable concavity, while the outer exhibited a still greater degree of convexity. This was partly owing to a curvature of the bone produced at the period at which the fracture united, but chiefly to a large exostosis developed upon its outer surface. This bony tumor was about four inches in length by two in breadth. It was broad, rugged, and expanded at its upper extremity, while below, it terminated in a pike of bone, which projected downwards, parallel with the shaft of the femur, and was separated about an inch and a half from it. There were two small fistulous openings corresponding to the situation of this exostosis, the one situated about three inches above the other. A probe introduced into either of these openings, communicated with a long narrow passage, which led directly through the middle of the bony tumor, to the central part of the shaft of the thigh bone. These fistula had been repeatedly healed, but were constantly reproduced in a short time. On the inner side, a similar opening had existed upon the inner part of the thigh, but at the period of the patient's admission, it was healed and covered with a scab.

From all the circumstances of the case it was apparent that a

cure could only be effected by removing the whole of the exostosis, and exposing the medullary cavity of the femur, so as to extricate the sequestrum, should any exist, as well as any portion of the bone that might be diseased. This I proceeded to on the 30th, assisted by my friend Dr. Thomas Aken, and in presence of the class of the medical college.

Having placed the patient upon the operating table, a longitudinal incision of about eight inches in length was made, commencing a little above the tumor, and ending about an inch below it. The two edges were then dissected laterally, so as to expose the whole extent of the diseased mass. I next proceeded, with a common amputating saw, to separate the bony tumor from the femur, by sawing in a longitudinal direction through its base, in front, and then dividing the remaining portion in the same manner from behind. A circular piece of bone, including the fistulous orifices, was afterwards removed by the trephine, and a bent probe passed into the medullary cavity. Using this as a guide, I proceeded to lay open the whole of that canal with the gouge and mallet, as far as the disease extended, taking care to remove every portion of necrosed or carious bone. No sequestrum was found at the time of the operation. The whole cavity was filled with dry lint, and the patient put to bed.

The operation was attended with great pain, and considerable fever followed. About the second day healthy suppuration took place in the edges of the wound, and on the eighth on examining with a probe, a loose piece of bone was discovered, occupying the medullary cavity. This was readily removed with a pair of forceps, and was found to consist of the sequestrum, rendered rough upon the surface by the action of the absorbents. It was about two inches in length, by an inch in breadth at its widest point. The same dressings were continued, and to allow the bone to exfoliate, which it continued to do for some time, the wound was kept open. Healthy granulations finally sprang up from the bottom, and the part healed kindly. The patient was discharged cured, and in the perfect possession of the use of his limb.

An error is not unfrequently committed in the treatment of necrosis, in trusting too much to the tardy process resorted to by nature to throw off the disease. It must be conceded that she is often competent, with very little assistance, to accomplish this object; yet it is equally true, that in confiding too much in her

powers, lives are not unfrequently lost, under the influence of protracted irritation. Chisseling away a considerable portion of the shaft of a bone with the gouge and mallet, I am aware has the appearance of a harsh operation. Experience, however, has proved its efficacy, and I am satisfied that it is infinitely better to resort to it, than to suffer an individual requiring such assistance, to drag out a miserable existence of months and years, harrassed by pain and suppuration, and worn down and exhausted by hectic fever.

Case III. *Necrosis of the three first metatarsal and the cuneiform bones—extirpation of them leaving the corresponding toes—cure.* A negro boy aged about 18, the property of the Messrs. Lowndes, was placed under my direction to be treated for a disease of his foot. The member was enormously enlarged, and the instep and inner border of the foot, presented several fistulous openings, through which a considerable quantity of ill-conditioned matter was discharged. On passing a probe into these openings, they were found to communicate with diseased bones in several directions. These I determined to remove. My first object was to extirpate the first metatarsal bone, which was found dead, and diseased throughout its whole extent. An incision was therefore made along the inner part of the foot, from the one extremity of the bone to the other, and the latter, all its attachments having been destroyed by disease, was easily removed, leaving the great toe and its proper flexor and extensor tendons entire. The second metatarsal bone was then found to be somewhat diseased, as well as the corresponding cuneiform bones, but as it was thought that the dead parts might be thrown off, the wound was filled with dry lint, and the foot properly dressed. After waiting for several weeks, without gaining much ground, and new fistulous openings forming upon the dorsum of the instep, which communicated with a considerable extent of the second and third metatarsal, and the three cuneiform bones, I next determined to remove the whole of them, taking care to preserve the corresponding toes, as I had done in the first operation. An incision was therefore extended in a longitudinal direction upon the dorsum of the instep, and upon the course of each of the metatarsal bones; the lips were drawn asunder, so as to expose the extensor tendons, which were drawn aside, and the bones were then disarticulated, first in front, then behind, and

dissected from their beds, leaving the toes with their tendons. This done, it only remained to remove the three cuneiform bones, which was easily accomplished, as they were so much diseased, that a considerable portion of them could be picked away in fragments. After a few days, healthy suppuration was established; healthy granulations sprang up; the tumefaction of the member subsided, and the wound finally healed up. The preservation of the toes was found highly advantageous to the individual in walking, which after the parts were healed, he was enabled to do with but a trifling impediment in his step.

It may be remarked, that this case had been pronounced upon as one requiring amputation of the leg,—an operation, which it is to be too much feared, is often resorted to on account of diseases of the tarsal or metatarsal bones, which might, in many instances, be relieved by a procedure which would secure to the individual the use of his foot, as in the present instance.

ART. IV. *Remarks on Fungus Hæmatodes, with a case.* By N. R. SMITH, M.D. Professor of Surgery, &c. in the University of Maryland.

I HAVE noticed in this formidable disease, one trait, which, so far as I know, has not been pointed out by authors, and that is, an occasional disposition to recede from its first locality and transfer itself to some other part—sometimes very remote from that first affected, which may then resume its healthy condition.

If my observation be correct, a very important principle, relative to this disease, is established viz: that the nutritive functions have a control over the morbid excrescence greater than has been supposed to exist. And if it be established that this power exists, it is obvious that we may hope to excite and direct it by remedies, so as frequently to effect the complete dispersion of the disease.

In 1829, I was consulted by my friend Dr. Howland, formerly of this city, in the case of a poor womon laboring under bleeding fungus, located in the vagina, upon the recto-vaginal septum. It exhibited strongly every trait of the disease. There existed an almost constant discharge of a sanious, and extremely fetid

fluid. Occasionally there was considerable hemorrhage, and sometimes lumps of soft medullary matter, involved in coagula, came away. These were always brought away in greater or less quantity when an examination was made with the finger, and then there also occurred hemorrhage.

Although a doubtful opinion was expressed in regard to the ultimate result of an operation, the patient was extremely desirous that the disease should be removed with the knife. The operation was accordingly performed, and it was found necessary to extirpate a considerable portion of the recto-vaginal septum, and vessels were divided which discharged a great deal of blood.

The patient soon recovered from the immediate effects of the operation; but after the lapse of a few weeks, the disease reappeared in the same parts. On this being ascertained, the case was considered hopeless, and only a palliative course of treatment was resorted to. The glands of the groin soon became affected and considerably enlarged.

After having witnessed this state of the disease, some time elapsed before I again saw the patient, and when at length I did again examine her, I found to my surprise that almost every trace of the disease had spontaneously disappeared from its original locality, and also from the glands of the groin. Several small tumors, however, had recently appeared in and around the mammæ, exhibiting all the characteristic marks of incipient fungus. They had an elastic pulpy feel, and were affected with but little irritation.

Again there occurred a considerable interval of time, and I once more examined the patient. The tumors situated upon the breasts had now totally disappeared, and disease had begun to manifest itself in the glands of the iliac region within the abdomen. In this last locality the disease continued to progress until it terminated in the death of the patient. A post-mortem was made and the disease was found to have involved the iliac glands on both sides, and to have extensively affected those of the mesentery. The disease was manifestly the medullary fungus. It should be stated, that before death, its ravages had recommenced in the vagina, and had extended to the uterus.

In a paper recently published in the Baltimore Medical and Surgical Journal, I have related a case in which I successfully treated what I confidently believe to have been the medullary fungus. The remedies employed were preparations of iodine

and mercury, generally and locally applied, with spare diet and repose.

I had at one time adopted the opinion of a distinguished friend, that the medullary fungus and schirrus were in their nature identical, only the one possessing more of the medullary and less of the fibrous constituent than the other. I am now convinced, however, by my own observation, that they are specifically different. In confirmation of this, is the fact, that true schirrus rarely if ever occurs in infants, whereas the medullary fungus is in them a disease of by no means unfrequent occurrence. It is also to be observed, that these diseases select different regions of the body, schirrus generally attacking glandular structures, the skin, or the mucous surfaces; while fungus manifests a partiality for the fibrous tissues.

Art. V. *Two cases of Anæmia.* By the Editor.

In the fourth number of the Baltimore Medical and Surgical Journal and Review, we offered some observations upon the pathology and treatment of anæmia, and endeavoured to point out some of its most striking peculiarities. That its existence depends upon a previous morbid condition of the solids, there can be but little doubt, and that it should be generally regarded rather as a symptom of pre-existing disease, than constituting a disease itself, we think is equally true. Yet, when the anæmic stage is once fully developed, that it excites symptoms which are peculiar to itself, and which call for a method of treatment somewhat special, we are fully satisfied from repeated observation. The general commotion of the vascular system; the violent throbbing of the vessels about the neck; the excessive palpitations of the heart; the hurried and embarrassed respiration; the frequent and *shattered pulse*, and in some instances, the intense heat of the skin, all of which are symptoms frequently observed to attend it, would seem, at first view, to call for blood letting, and the general employment of antiphlogistics. We have more than once seen them attacked by such remedies: we have seen repeated bleeding resorted to,—antimonials, cathartics, and mercurials diligently employed; yet with the constant effect of exasperating all the symptoms. Under the same circumstances, we have seen an opposite course pursued, con-

sisting of a combination of antiphlogistics, corroborants and alteratives, and although apparently incompatible with the general train of symptoms, they have all been speedily subdued under the use of these remedies, and health rapidly restored. But as these facts have been fully explained in the paper above referred to, we merely propose to offer here, two cases in illustration, which have fallen under our care since those remarks were published.

Case I. *Anæmia succeeding intermittent fever.* George Purse, seaman, aged 19, was admitted into the Baltimore Infirmary, August 5th, 1834. Has been sick two months, on the voyage from New Orleans to Baltimore. Has had a chill every day at 12 o'clock, which was constantly followed by fever. His abdomen is now very much swollen, and presents evidences of visceral enlargement with effusion of water. His tongue is very pale and slightly furred; his gums almost white, and his skin bloodless, pale, transparent, and of a waxen aspect. His pulse is full, frequent, and presents a peculiar thrill; his respiration short and hurried, and his fever almost constant; there being generally a chill every day at 12 o'clock.—Bowels rather costive; cups to the abdomen; Massa Pil. Hyd. Extract Alk. Jalap. Pulv. Rhei. ā ā gr. iij., ft. Pil. et cap. ter in die.

Aug. 6. Little or no change in his condition—cups repeated, and medicine continued.

Aug. 9. Blister to the abdomen, and medicines as before.

Aug. 10. No chill, but the fever and other symptoms not much mitigated. Blistered surface to be sprinkled with sulphate quinine, gr. x. three times a day, and skin sponged with cold water as long as it continues hot.

Aug. 13. No effect observed from the quinine.

Aug. 14. Fever somewhat less—Prussiat Ferri, gr. x. three times a day.—The alterative aperient pill at night.

Aug. 19. He had improved very much under the use of the prussiate of iron, but in consequence of imprudence in diet, the excitement has been renewed. Ol. Ricini ʒ ss.—Tinct. Digit. gutt. x. three times a day.—The iron only to be given at night.

Aug. 24. Much improved—Digitalis discontinued, and the iron to be administered three times a day—dose increased to gr. xv. Iodin. ʒ ss. Hydriodat. Pot. ʒ i. Unguent. Hyd. Fort. ʒ i. m. to be rubbed upon the abdomen daily.

Sept. 10. His improvement since the last date has been rapid

and steady. The bloom of health has returned to his cheeks, and he feels himself relieved of all his distressing symptoms. He still continued to take the iron in the form of the muriated tincture, as a substitute for the prussiate. *Reported by Mr. S. G. Baker.*

Case II. Charles Winn, seaman, aged 18, was admitted into the Baltimore Infirmary, July 30th, 1834. He was born in a malarious district of North Carolina, and from his earliest youth has been annually subject to intermittent fever, until two years previous to his admission, during which time he has led a seafaring life.

The whole body at the present time is exsanguined, more or less mottled, and of a pale waxen hue. His cheeks and ankles are œdematous; the abdomen tumid; adnata of the eye of a pearly lustre; lips, gums and tongue blanched, and the latter pointed; muscles flaccid; body emaciated; digestive powers partially impaired; respiration much disturbed, the least exercise occasioning hurried and oppressed breathing, and if continued producing speedy exhaustion. The heart palpitates violently even when lying at rest, and there is tumultuous throbbing of the carotids and other large vessels about the neck. The pulse is also frequent, and presents a peculiar *shattered thrill.* The liver and spleen are perhaps enlarged, but the effusion of water into the abdomen renders it difficult to decide by exploration. Massa. Pil. Hydrarg. gr. iij. Pulv. Soc. Aloes, gr. 1. Pulv. Ipecac. gr. ss. every night. Carb. Ferri, gr. x. three times a day. Generous diet with porter.

Aug. 10. The improvement of his general health has been steadily progressive. Tongue and lips slightly reddened—abdomen less tumid. The œdema of the cheeks and ankles has lessened—digestive function invigorated, and the evacuations more healthy.

Aug. 25. Still improving. Tinct. ferri muriatis substituted for the carbonate of iron. Alterative pills to be continued.

Sept. 11. All the prominent symptoms of the disease have yielded, in a great measure, to the treatment. Tongue and lips more colored; the tumefaction of the abdomen has entirely subsided, as has the œdema of the cheeks and ankles. The palpitations of the heart, and the excessive throbbing of the vessels are no longer perceptible. His pulse is regular and full, and he is able to bear considerable exercise without fatigue. *Reported by Mr. J. C. W. Wederstrandt.*

ART. VI. *Case of Intussusceptio.* By M. S. BAER, M.D., of Baltimore.

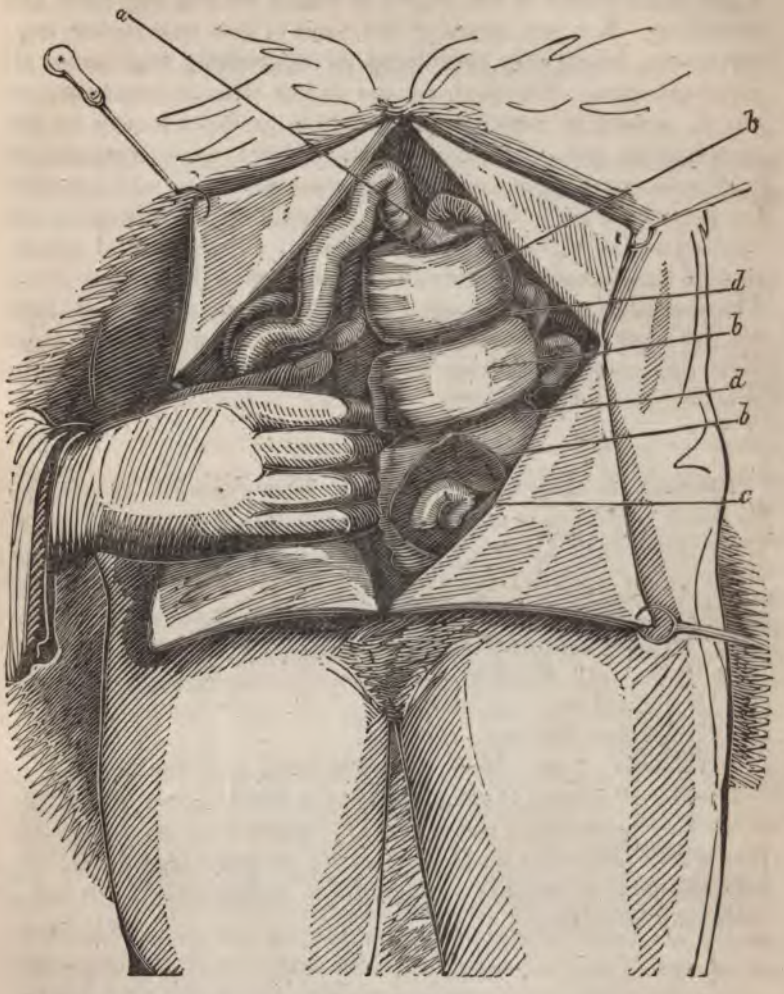
THE daughter of Samuel Haoman, aged 16 months, was attacked on the 24th of August, 1834, with violent vomiting, incessant screaming, and a disposition to draw up the legs. I was unable to make a minute examination at the first visit, but the parents reported, that "the child's health had been rather indifferent, and that she had been affected with more or less diarrhœa." I directed small doses of calomel, and sinapisms to be applied to the abdomen.

25th. No improvement, except that there have been longer intervals of exemption from vomiting. She had passed a small watery evacuation, tinged with blood. Having an opportunity at this time, to make a careful exploration of the abdomen, I discovered a large tumor occupying the left iliac region, which I supposed to be the colon obstructed, and distended with foreign matter. To remove this, enemata were resorted to, but I was unable to throw them up on account of some obstruction. Anodyne fomentations were also applied to the abdomen. But the only effect of all the remedies was, to secure to the poor sufferer, longer intervals of repose. She died on the 26th.

Autopsy.—The body somewhat emaciated. The viscera were generally healthy, except the intestines, which presented points of inflammation throughout their whole extent, and were greatly distended with gas. On following the course of the ileum, I found that it terminated in a large tumor, which was situated perpendicularly in the left iliac region. On proceeding to remove this tumor, I found that a portion of the ileum had slipped into the cœcum, and was there incarcerated by the ileo-cœcal valve, and that an inversion had commenced at that point, taking in the cœcum, and ascending, transverse, and descending parts of the colon, as low as the sigmoid flexure. This latter portion of the gut was straightened, and greatly distended, and at several points, manifested a disposition to become inverted on itself. The incarcerated portion descended with the ileo-cœcal valve, to within two inches of the ducts.

Remarks.—I have asked myself this question:—can there possibly be any practical good derived from the publication of this case? It may, perhaps, be supposed that there cannot. In

such an opinion I am not altogether disposed to concur. Every pathological fact possesses a value, sufficient to entitle it to a



a Ileum above the commencement of the inversion.
b b b Prominences presented by the outer surface of the colon.
c The lower part of the rectum laid open, to show the inverted intestine.
d d The portions of the large intestine which shewed a disposition to become inverted.

careful examination; for although there are many organic lesions, which are entirely beyond the control of the resources of

art, it is not the less important that we should be acquainted with their character, in order that we may be enabled to make a just appreciation of the extent to which we can rely upon our remedies. Nor can cases of the kind of the one under consideration, be strictly considered as necessarily fatal under all circumstances. Although art can do but little to avert such an event, nature is sometimes competent to effect a cure by her spontaneous and unassisted efforts. Cases have occurred, in which, in consequence of a free adhesion having formed between the peritoneal surfaces which are brought in apposition by the inversion of the gut, and the subsequent sloughing and expulsion of the included portion, a complete cure has taken place. These considerations, together with the object of shewing how far the inversion can take place, and into what a small space these important organs may be compacted, have induced me to offer the case for publication.

Ointment to allay the Irritation of Hemorrhoidal Tumors.— So much suffering is experienced from the incessant irritation of hemorrhoidal tumors, that every means capable of affording relief under such circumstances, must prove acceptable to the profession. I have used an ointment similar to the following, with the most happy effects, and in a great number of cases:

℞ Pulv. Carb. Plumbi, ʒ ss.
Sulph. Morph. gr. xv.
Unguent. Stramon. ʒ i.
Ol. Olivar. qs. M. ft. unguent. part. applicand.

Powdered opium, to the amount of a drachm, may be substituted for the morphia, and if the dry white lead is not at hand, that which is ground in oil, for the use of painters, may be advantageously substituted. Sometimes a drachm of powdered galls may be added. EDITOR.

SELECTED PAPERS.

A Lecture by WILLIAM STOKES, M.D. *delivered at the Medical School, Park street, Dublin.—Session* 1833–34.

PAINTERS' COLIC.

THE disease is called painters' colic, from the circumstance of house-painters being extremely liable to it from coming into frequent contact with the poison of lead. Its synonyms are numerous, dry colic, saturnine colic, rachialgia metallica, Devonshire colic, &c. &c.

Painters' colic is an example of the effects of a metallic poison on the nervous system. There are certain metals which produce a powerful effect on the system, not by means of their corrosive properties or by any direct action on the surface to which they are applied, but by a peculiar impression made upon the nervous system. Thus we find that mercury under certain circumstances will give rise to a very singular nervous disease; arsenic may be introduced into the system in such a way as to produce symptoms of nervous lesion; copper exercises a similar morbid influence, and the effects of lead are universally known. I do not mean to say that all these metals produce similar effects on the economy, for this is not the case, but there is one point of agreement between them, that all may produce symptoms which are called nervous or neurotic, and the diseases thus produced are classed among the neurosis. What is the meaning of this term neurosis? *A lesion of nervous function, more or less complete, occurring independently of any demonstrable organic change.* A neurosis, then, is an alteration in the functions of the nerves of organic and animal life, the nature of which alteration we cannot understand, neither can it be demonstrated by the knife, nor by any examination of the state of the nervous tissue. In other words, a person will die with the symptoms of a neurosis, and when you come to examine the body, you will be unable to detect, in the minute ramifications of the nerves, the trunks, or the nervous centres, any appreciable lesion.

Diseases of this description have been divided into two classes,—active and passive neuroses. Active neuroses signify an increase or exaltation in the nervous function, passive neuroses are those in which there is a diminution of nervous energy; in both there is an absence of perceptible organic change. Take, for instance, an example from the nerves of animal life: a case of convulsions, independent of organic disease, is an example of the active neurosis; a case of paralysis, under similar cir-

cumstances, is an example of the passive. In the former, there is an exaltation of the nervous function, which is reflected upon the muscular system; in the latter, there is a diminution, producing a partial or total loss of the power of motion. It has been asserted by eminent physiologists, that passive neurosis can only exist in the organs of the life of relation, because the functions of the ganglionic system, which presides over organic life, cease only at the death of the individual. But there may be such a thing as semi-paralysis of the organs to which the ganglionic nerves are distributed, and hence we may have passive neuroses of the system of organic as well as of animal life. We get a good idea of these neurotic affections, by taking some of the most remarkable instances of this kind. Hydrophobia is a remarkable instance of excessive lesion of the nervous function without any known organic change; so is tetanus, and so are some forms of apoplexy, convulsions, and mania. Here we have violent irritations of the nervous system, in which there is no perceptible organic change, and where the only information we derive from pathological anatomy is of a negative character, telling us what these diseases are not, and leaving us, as to their actual nature, as much in the dark as ever. We find by dissection that hydrophobia and tetanus, and hysteria, and convulsions, and apoplexy, are not caused by inflammation of the brain or spinal marrow, and that is all. Hydrophobia, tetanus, convulsions, and hysteria, are instances of active neurosis; paralysis and apoplexy, without any known cerebral disease, are looked upon as examples of the passive kind, because they present either a diminution or abolition of the nervous function.

In the present state of medical science we must admit this division of the affections of the nervous system into diseases with and without perceptible organic lesion. I grant that it is very difficult, when we come to consider alterations in the functions of parts, to conceive how such changes could be effected without molecular alteration, or that the brain could be deranged in its functions, without some change of this kind. We are, however, compelled to consider such functional alterations of the nerves as changes with which we are unable to connect any process of hardening, or softening, or anomia, or congestion, or, in fact, any *known* pathological condition. Rostan is of opinion that all diseases are organic, that is to say, that they are produced by some molecular change, and this, he says, should be the basis of medicine. Unfortunately for medicine it has been given so many bases, that it sometimes knows not what leg to stand on.

But to return to our subject. Painters' colic is an example of a neurosis, that is to say, it is a lesion of the nervous function, unconnected with any known pathological alteration. It presents commonly two periods, the first exhibiting the phenomena of active, the second of passive, neurosis; or, in other words, the signs of exaltation of the nervous func-

tion precede those of depression. In the majority of cases, we find the first stage of this affection characterised by violent spasm, pain and convulsions, symptoms indicative of active nervous lesion, whereas in the second stage we have paralysis, the diagnostic mark of the passive kind. This is the order in which the phenomena of painters' colic are generally met with, but in some cases the first stage is either very imperfectly shadowed out, or even entirely wanting; the paralysis comes on in an insiduous manner, and without being ushered in by any symptoms of exaltation of the nervous function.

In this country the most common victims to this disease are painters, who are much in the habit of working in white lead, and when you are connected with the management of any public medical institution (as I hope you will all be,) you will often have to treat cases of this description. In Dublin and all large cities, it is an exceedingly common affection, and the patients are for the most part house-painters. Next to these, the persons who are most subject to it are plumbers, and those who are employed in the melting of lead.

When the poisonous particles of lead enter the system in a highly volatilized state, its morbid effects are more certain and extensive. Every house painter will tell you that the kind of work which is most likely to produce a deleterious effect, is painting "the *dead white*," or, as it has been termed, *statuary white*. In doing this they use white lead combined with a large proportion of oil of turpentine, and, in order to produce the intended effect, they are in the habit of excluding the air as much as possible. By means of the turpentine and the warm temperature of a close room, the lead is volatilized, and in this state appears to have an extraordinary power of impregnating the system. Some of the very worst cases of painters' colic are produced in this way. Painting in the open air, even where the same preparation is employed, is comparatively harmless. A poor fellow, who was for a considerable time under my care, assured me that he had escaped for twenty years, and was convinced that he would have enjoyed a much longer immunity, had he not been put to work at the statuary white in a close room.

With respect to plumbers, it is now ascertained that this disease is of comparatively rare occurrence among them, and the reason of this is that they generally work in the open air, or in well ventilated apartments, and have now but little to do with the actual manufacture of lead. The kind of lead which they generally use, sheet and pipe lead, is furnished from the manufactories, and their occupation principally consists in the moulding and soldering of it. We very seldom now see a plumber laboring under colic.

Painters' colic may be observed under a great variety of forms, but for the convenience of studying the disease, we may divide these varieties into four classes. In the first we have the phenomena of simple colic,

without any obvious or marked symptoms of bilious, gastric, or cerebral derangement. In the second variety, the disease assumes a more decided character; the colic is complicated with symptoms of fever of a gastric character, the pain in the belly is more acute, the constipation more obstinate, there is pain and difficulty in going to stool, nausea and vomiting, with occasional headache, dyspnœa, and sense of constriction about the præcordia, the belly is hard and retracted, and there is often pain in passing urine. In the third variety we have a more formidable array of symptoms. The functions of the brain and spinal marrow are deranged, there are wandering pains in the extremities, and the patient has frequent attacks of violent convulsions, resembling those of epilepsy. He also labors under the abdominal symptoms, but in this stage they are not so well marked, or so distinct as in the former; the lesions of the functions of the cerebro-spinal system begin now to exhibit a greater degree of preponderance, and claim the principal share of the attention of a symptomatologist. In the fourth variety there is paralysis, without being preceded by the ordinary symptoms of abdominal or cerebral derangement. A medical friend of mine met with a case of this kind not long since. He was called to visit a child who had lost the use of his limbs. He went and found the child lying in bed perfectly quiet and easy, his intellect sound, and his spirits good, but laboring under complete paralysis of all his limbs. He inquired minutely into the history of the case, and made a most scrutinizing examination, but from all he could see or learn, there was not the slightest ground to suspect disease of the brain or spinal cord. There had never been any symptoms of colic. He was puzzled with the case, and tried one thing after another without benefit. At length he found out that the child's father was a painter by trade, and this led him to suspect that the symptoms might have some connexion with the poison of lead. He inquired, and was told by the mother, that a quantity of white paint had latterly been kept in the room, and that it was impossible to keep the child from it. He instantly had the paint removed, a free current of air admitted into the room, and by the use of purgatives, assisted by stimulating frictions, the child recovered.

The following is the order of symptoms generally observed in this disease. First, we have the precursory, denoted by pain and sensation of weight about the epigastrium, a weak, small pulse, general languor and weakness of the muscular system, want of appetite, cold, clammy skin, a tremulous and coated tongue. At this period there is sometimes diarrhœa. Then comes some exciting cause, exposure to cold or wet, excess in eating or drinking, and the disease sets in with more or less intensity. The patient is attacked with dreadful pain in the belly, which differs from the pain of inflammation in this, that, so far from being increased by pressure, it is in most cases relieved. In fact, so decided is the relief produced in this way, that there is a case on record in which the patient

used to get the greatest ease by making one of his fellow-workmen stand upon his belly. This relief from pressure is very generally observed in colicky affections. Indeed, so general is it, that you will hear it frequently stated, that all cases of colic are relieved by pressure. This, however, is not invariably true; for I have seen cases where the patients could not bear pressure, and were it required a careful examination to distinguish the symptoms from those of inflammation. The pain is of a twisting kind, and felt about the umbilicus; and, in connexion with this, there is scanty urine, with more or less pain in passing it, obstinate constipation, and a tense, hard, retracted state of the belly, from the violent contraction of its muscles. The upper portion of the belly is sometimes more retracted than the lower, and the pulsations of the abdominal aorta are unusually distinct. The pain remits, and then becomes exacerbated, and the patient's countenance is expressive of acute suffering. In that form of the disease, where there is a complication of gastric or bilious symptoms, the patient has a semi-jaundiced look, a hot, moist skin, quick pulse, foul tongue, vomiting, hiccup, thirst, and epigastric tenderness.

In the third form, the chief force of the poison seems to be directed against the brain and spinal cold. There is vertigo, headach, stupor, and sometimes delirium; the patient has fits resembling those of epilepsy, but of longer duration, and violent convulsions, which sometimes continue with unabated intensity for twelve or even twenty-four hours. You will see those unfortunate creatures rolling and twisting in every form, sometimes doubled forwards, sometimes in a state of perfect episthotonos, sometimes moving their limbs with the convulsive action of an epileptic, and foaming at the mouth. In addition to this, it is stated in the descriptions of this disease, that the patient loses his sight and becomes amaurotic; this I can confirm, for I have seen it more than once. It is a curious fact, too, that this blindness may come on before the other cerebral symptoms are developed. I recollect a case in which one of the first symptoms was blindness. The patient happened one evening to be indulging himself in whiskey punch, and was in a fair way of getting comfortably drunk, when, unfortunately, he found that all of a sudden he could see neither single nor double. He groped about in a very disconsolate state for his glass, but not finding it, and finding at the same time that he had lost his sight, he came to the hospital next morning, and shortly after his admission had a violent attack of convulsions. In cases of this kind I have generally found the pupils contracted. The patients toss about in bed, and are frequently found lying with their heads turned towards the foot of the bed. In some cases the breathing has been stertorous for a length of time, and the head fixed, but the fingers and hands were flexible. I have seen cases in which the coma disappeared, and was followed by perfect blindness, lasting for two or three days, and then yielding to treatment.

These symptoms, striking and extraordinary as they are, do not seem to depend on the same state of the brain as cases of other diseases which are accompanied by sanguineous determination to that organ. The reason I make this assertion is, that many of the most violent nervous symptoms, including profound coma, subside under the use of a stimulant treatment. I think we may look upon these symptoms as similar to what are termed the symptoms of the *nervous apoplexy* of the ancients. A case of this kind, which occurred in the Meath Hospital, is deserving of notice from the singular effect produced by treatment. The patient was in a state of profound coma, but the head was cool, and the arteries had no inordinate pulsation. If this was a case which presented the other symptoms of apoplexy, I would have prescribed bleeding, leeches, and cold applications. But I reasoned thus—Here is a case in which there is no evidence of the existence of inflammatory action. Opium has been found to relieve the abdominal symptoms of the disease;—may it not also relieve the cerebral? I ordered the patient to have a free dose of laudanum in camphor mixture. In a few hours he awoke, sat up in his bed, and next morning we found the symptoms of coma had completely disappeared. In two other cases of a similar kind, I have given opium and carbonate of ammonia with the most favorable result.

Dr. Clutterbuck mentions a peculiar symptom of this disease,—a kind of gouty inflammation attacking the great toe and followed by relief. I have not seen this. He states that the first joint of the great toe becomes red, hot, painful, and swollen, and that this remits by day and returns again at night. I have never seen this, nor have I ever seen those hard tubercles on the tendons in various parts of the body, which some authors have described.

After these symptoms we come to a new class, namely, the passive, characterised by paralysis of the muscles of animal life. It is remarkable that this paralysis seems to be principally a paralysis of motion, and that the power of sensation is seldom or never impaired. Generally speaking, the upper are more subject to paralysis than the lower extremities, and the right than the left arm. Tlie latter circumstance is explained by assuming that the direct influence of the poison is more applied to the right arm. The paralysis of the arm is also frequently partial; the extensors lose their power, but the flexors do not in so great a degree. You will see a patient with his arm hanging by his side as if it were dead, but if you give him any thing to hold he can grasp it firmly. I have known painters continuing to work with a semi-paralysed arm. There is also an atrophied condition of the affected part, and this sometimes comes on with such rapidity, that, in the space of a week or ten days, the affected limb will be scarcely half as bulky as the corresponding one. We cannot account for this remarkable emaciation on the principle of loss of motion alone, for the short space of time in which it

occurs in many instances is opposed to our entertaining such an opinion, and we must look for some other explanation. On this point science affords us no satisfactory information.

This disease, notwithstanding all its terrible array of symptoms, is very seldom fatal. Hence the uncertainty which long prevailed as to its pathological nature. In the great majority of cases, where a dissection was made, the patients died of some other disease, which either occurred during its course, or had preceded it. All that appears to be established at present is, that there is no known organic change of the nervous system connected with this disease, that it occurs in all its forms without the co-existence of organic lesion, and that its exciting cause is the poison of lead.

It was formerly supposed that all the preparations of lead, whether applied externally or used internally, were capable of producing colic, but this doctrine is at present considered very questionable. It was thought that metallic lead and all its salts were capable of causing the disease, but the morbid influence of this metal is now restricted by the best chemists and pathologists chiefly to its carbonate. This opinion I believe was first put forward by Dr. A. T. Thomson, the author of the London Dispensatory, in an interesting paper published by him in the tenth volume of the Medico-Chirurgical Transactions. The object of this paper is to prove that, of all the preparations of lead employed in pharmaceutical and other purposes, the carbonate is that which is chiefly poisonous, and that the acetate and sub-acetate are comparatively harmless.

You have all, I am convinced, heard of cases of colic produced by the external use of the acetate of lead, and you will see some cases in proof of this opinion in Darwin's Zoonomia and other writings. There is a case on record of a woman, who having poulticed her ankle with this preparation, for the cure of a sprain, got colic and fell into a state of marasmus. I know of a deplorable case of burn affecting the abdominal integuments, which was treated with a solution of the acetate of lead. After using it for a fortnight or more, symptoms of colic came on, which not being recognised the lead wash was continued, and the woman died in great agony. Dr. Thomson explains all this in a very satisfactory way. He shows that the solution of acetate of lead, when exposed to the air, attracts a quantity of carbonic acid, and is thus converted into a carbonate; of this I have very little doubt, for you will find that, by exposing a solution of the acetate of lead to the full influence of the air, the carbonate will be gradually deposited in the shape of a white powder. In the same way we can understand why it is that a solution of the acetate of lead, added to fermenting poultices, may be converted into a carbonate by the carbonic acid which is evolved. It is also a fact, that the acetate can be used internally for a long time without producing any

thing like deleterious effects. I have given it for weeks together in full doses without its having been ever followed by colic, or any symptoms characteristic of the absorption of a poisonous matter. There are cases on record where as much as six drachms of this salt have been taken internally without producing any sensible morbid effect. As far as my experience goes, all those cases, in which the medical use of the acetate of lead has been attended with disagreeable symptoms, were cases in which it had been used as an external application. There were two cases in the Meath Hospital in which this medicine was used externally, in which colic and other indications of poisonous absorption took place, but not a single one in which its internal employment had been injurious. An excellent practical rule is laid down by Dr. Thomson, that, where you wish to employ the acetate of lead internally, you should take care to combine it with diluted acetic acid. Of the two combinations of lead with acetic acid, the sub-acetate is most liable to be decomposed and converted into a carbonate, so that, if you prevent this by mixing with the sub-acetate, or acetate, a certain quantity of distilled vinegar, there will be little or no chance of unpleasant symptoms being produced, even where the medicine is given in very considerable doses. We are, therefore, I think, justified in concluding that it is the carbonate of lead which is productive of poisonous effects, and that where bad symptoms have resulted from the use of the acetate, it was in consequence of its being converted into a carbonate. I must, however, remark, that it has not been sufficiently proved as yet that the use of the acetate is *perfectly safe.*

It is an interesting fact, that many of the lower classes of animals are subject to this disease. Burserius was one of the first authors who directed the attention of medical men to this singular occurrence. I have got from my father an abstract of some observations made by him on this subject, during a visit to the lead hills in Scotland. He found that in the pastures among these hills, and in their immediate vicinity, cows, horses, sheep, dogs, and even poultry, were subject to colic from lead. The symptoms, also, in these animals were observed by him to bear a very close analogy to those of the human subject. Thus, for instance, in cows there was obstinate constipation with suppression of urine, the poor animals seemed to suffer from violent twisting pain of the belly, and sometimes were thrown into a state of furious excitement, running wildly across the country. He learned also that during that period it was calculated that at least one-tenth of the cows in this situation had died of the effects of the poisonous absorption of lead. One of the most ordinary precursory symptoms was the animal becoming what is called hide-bound, this was followed by obstinate costiveness, and there was much apparent suffering, with panting, starting, and slavering from the mouth. Where the cerebral symptoms were most prominent, the signs of abdo-

minal irritation were by no means distinct, and this, as I have remarked, is the case in the human subject. In some, who had the head affected and ran wildly through the country, the secretion of milk was stopped, and this accords too with the effect of lead on the human female. Another remarkable circumstance is, that animals, living in the vicinity of these lead hills, have exceedingly difficult labors. Sheep are subject to epileptic convulsions and paralysis; dogs have the head principally affected, they run across the country slavering at the mouth, as if in a state of hydrophobia, but they do not bite, and are in all respects perfectly harmless. In barn-door fowl the generative function was injured, and the hens reared or brought there ceased to lay eggs.

There is one fact mentioned in these observations, which tends to confirm the opinion of Dr. A. T. Thomson, that the poisonous effects of lead are produced chiefly by the carbonate. A distance of very few miles from the valley renders animals quite free from any liability to the disease, but if they should happen to stray into the immediate neighborhood, and particularly into a portion of low ground, flooded during the winter months by a river, which runs along the valley from the mines, and which, in all probability, leaves behind an efflorescence of the carbonate of lead, they are very liable to be affected with colic. It is said, also, that the poison is produced by the volatilization of lead in the smelting houses, the vapors of which are carried down the valley and through the neighboring parts. Be this as it may, the Gaelic name of the valley signifies the *poisonous vale*, and, as it is very probable that this name had been given in consequence of the deleterious qualities of the place long before the establishment of lead works, it tends strongly to favor the opinion that it is the water which contains the poison.

The mode of cure employed by the shepherds in this place is to give strong purgative injections, and remove the cattle from the influence of the poison, by sending them to new and healthy pastures. In this way they frequently recover, and if we look to the cause of the disease, its symptoms, or mode of cure, we shall observe a striking analogy between it and the colic from lead in the human subject.

You will recollect that I introduced the subject by stating that painters' colic belonged to the class *neuroses*, and that I endeavored to show that this implied a lesion of function of any part or viscus of the body, frequently characterized by the most decided departure from the natural condition, and yet unaccompanied by perceptible organic change. I said also, that it was hard to suppose the existence of great functional alteration, *without any molecular change;* but that, in the present state of science, we are compelled, for want of a better term, to call these affections *neuroses*, in contradistinction to diseases in which there is organic lesion visible. To illustrate this point, take an example from two different cases. In one case of what is called *dyspepsia*, we have inflamma-

tory, or, at least, sub-inflammatory derangement of the stomach: here the disease is traceable to organic change; in another case we have symptoms of nearly the same character, and yet there is no organic lesion. Painters' colic comes under the latter head; we observe symptoms of excessive functional lesion, but dissection does not exhibit any organic change. Pathological anatomy tells us what it is not, and we arrive merely at a negative knowledge of its nature. We have decided proofs of extraordinary lesions of the nervous system, and yet, when we come to the post mortem examination, we cannot find any visible change to account for these striking phenomena.

The old pathologists maintained, that spasm of the intestines was the principal cause of the disease, and attributed the symptoms to their contraction. This opinion appears to have some foundation, when we consider the violent symptoms of colic which accompany this affection. Dubois de Rochfort has mentioned, that in such cases he has found intussusception of the intestines. De Hean says, that contractions of the colon are very common; and several authors make the same assertion. The results of more modern observation, however, are against these opinions. I have told you already, that, in consequence of this disease seldom or never proving fatal, there is a degree of doubt attached to its pathology; but it is an interesting fact, that where death, from other causes, has occurred during the existence of painters' colic, the digestive tube has been found either in its healthy state, or with a few detached spots of vascularity, without any decided inflammatory character, and totally insufficient to account for the symptoms. This, which is all that pathological anatomy reveals, may be considered as purely accidental, and only of occasional occurrence, so that we are compelled to look upon the disease as one in which there is great lesion of function without any organic alteration.

In the hospital of La Charité, at Paris, a vast number of cases of painters' colic have been treated. In the space of eight years, five hundred cases of this description have been admitted; out of these, five died while laboring under the disease; and the following is an abstract of the appearances observed on dissection. In the first case, there was rupture of an aneurism of the abdominal aorta, and the patient sank from loss of blood. On examination, the digestive tube was found in the natural and healthy condition—there was neither *vascularity nor contractions.* The subject of the second case died of apoplexy. The whole intestinal canal was found healthy, and, contrary to the doctrines of the school of Broussais, there was neither congestion nor vascularity.

(To be continued.)

REVIEW.

Admonere voluimus, non mordere.——
Sunt bona; sunt quædam mediocria, sunt mala plura.

De Morbo Pulmonum organico ex Respiratione Neonatorum Imperfecta Orto. Auctore Eduardo Joerg, Philos. Medic. et Chirurg. Doct. pp. 59. Lipsiæ, 1832.

On a Disease of the Lungs, which arises from the imperfect respiration of new born infants. By Edward Joerg, Doctor of Philosophy, Medicine and Surgery, &c.

The subject of this small brochure, is one of great interest. The remarkable and sudden changes which the lungs of the child undergo at birth, necessarily alter the character of their relations with the whole infantile organization; and in taking upon themselves, suddenly, the performance of a function, so important and indispensable as that of respiration, they are acted upon by influences, and exposed to the impression of causes, to which, until then, they have been totally unaccustomed. Upon the readiness with which they accommodate themselves to these new relations, depend the safety and well-being of the new individual, and where any circumstance transpires to interfere with the regular series of changes which must take place under such circumstances, disease, and even death, must be the inevitable consequence. Dr. Joerg seems to have investigated the changes which take place at this period with considerable attention, and in the small treatise before us, he has offered an interesting exposition of a peculiar disease of the lungs of new-born infants, which he conceives to depend upon the imperfect development of the function of respiration at the period of birth.

To enable our readers to understand the drift of some of his arguments, it will be necessary to premise, that he denies the existence of any direct continuity, by vessels, between the maternal and fœtal placentas. Their minute radicles, he supposes, interlace with each other,—one from the fœtal placenta being received as it were between two of that of mother, the fluids passing from the one set of vessels into the other, through the porosities of their delicate tunics. The placenta, he supposes, performs for the blood of the fœtus, the same office that the lungs do for that of the adult. The fœtal blood is returned to this organ, deprived of oxygen, and loaded with carbon; but in consequence of a play of chemical affinities, it attracts oxygen from the blood of the

mother, and imparts to it carbonic acid gas, so that a continuous respiratory process is here carried on, precisely similar to that which is accomplished in the lungs. These changes, however, only continue for a certain time. All animals as well as plants, have a definite period of growth, which completed, they fall into a state of decay. Hence the growth of fœtus, obedient to this law, only consumes a period of about ten lunar months, towards the end of which time, the nature of its connexion with the mother undergoes important modifications. The placenta, umbilical cord, and the membranes, destitute as they are of nerves, cannot sustain their existence beyond that term. Towards the tenth month, therefore, they begin to atrophy; their communication with the uterus is gradually interrupted; they irritate that organ like a foreign body, and excite it to vigorous contractions, by which the new being and all its appendages are expelled. The manner in which this expulsion is accomplished, or at least the time consumed in the process, he considers a matter of great moment, and attempts to prove, what to many may appear a paradox, that the safety of the child depends upon the labor not being quick and easy, but upon its being sufficiently protracted, to allow time for its dependence upon the placenta to be sufficiently broken up, to make it feel forcibly the necessity for pulmonary respiration, in order that, impelled by its organic instincts, it may make a greater effort to expand the chest, and thus secure the full distension of the lungs.

Having premised some general remarks on the physiology of the fœtus, and the objects of labor, the author next proceeds to the description of the disease which is the subject of his treatise. If we understand him rightly, it is a species of induration, or condensation of the pulmonary tissue, which, he says, consists in "*a concretion of the air cells affecting more or less of the left or right lung, or both at the same time.*" "These cells," he subjoins, "without any preceding inflammation, exudation, or destruction, but merely in consequence of the defect of respiration, and the air not penetrating and distending them, become gradually impervious, and finally coalesce completely. The part of the organ thus affected, is higher colored and firmer than is natural to the fœtal lung, and cannot be inflated by any force, although air can be made to permuate a healthy portion of the same organ with great facility. A portion of the diseased lung of a fœtus which has lived for several days, or even weeks, laboring under this affection, still retains the same character, even when macerated and dissected in water." p. 7.

The causes of the disease are of two kinds:—1st, a too easy or quick delivery; 2nd, too violent compression of the brain of the child, whether it proceed from the preternatural force of the uterine contractions, a contracted pelvis, or the violent pressure of instruments. In reference to the first cause, it is remarked, that when the delivery of the child is too much hastened, it is not sufficiently deprived of its supply of oxygen

from the placenta, to make it feel forcibly the want of that fluid, and to call forth the instinct of respiration which constitutes the indispensable condition of its future existence. Hence, not being impelled by this want, when thrown upon its own resources, no active effort is made to expand the chest, and inflate the lungs. An imperfect respiration is all that is accomplished, the air only penetrating a portion of the cells of the organ, while a considerable number of them are not reached by it, and consequently remain collapsed, and subsequently coalesce, or become impervious. To obviate these difficulties, the labor should be sufficiently protracted to allow time for the dependence of the fœtus upon the placental respiration to become so far weakened, that urged by its want of oxygen, which it can now no longer receive in sufficient quantity from that source, it may be compelled to undergo those changes preparatory to the establishment of pulmonary respiration, so that when fairly thrown upon its own resources, it may make a full and powerful effort to expand the chest, fully inflate the lungs with air, and secure the free circulation of the blood through them.

The same condition of the lungs may be induced by compression of the brain, or excessive distension of the spinal marrow during delivery. The tendency of such compression, or stretching of the chord will be, to produce a state of asphyxia, or a general depression of the vital powers. Under such circumstances, the lungs participate in the general paralysis or sluggishness of the other organs, and are incapable of responding fully to the first effort at respiration which is made. The chest, therefore, the motions of which are also under the influence of the nervous centres, will be imperfectly expanded; the lungs, as in the preceding case, will not be fully inflated, and those cells which the air does not penetrate, will remain in a collapsed state, and finally become impervious.

The author remarks, that although these different causes produce the same disease, there is some difference observed between those children, in whom it is induced by a delivery too much accelerated, and those in whom it proceeds from compression of the brain, or injury of the spinal marrow. The first he has never seen asphyxied—but such children, although large and well formed, are feeble, and nearly motionless: their limbs hang pendulous, like those of an individual who is fatigued: their voice is weak and fretful; the respiration is imperfect; the actions of the chest are confined, and they frequently lay with their eyes half open. When plunged into a bath, they seem to be a little invigorated, but the respiration is still oppressed, and the inspirations short and superficial, like those of an individual affected with asthma, or hydrothorax.

Those children, who during labor, sustain much injury of the head or other parts of the body, and present large tumors or bruises of the scalp, redness or lividity of the surface of the body, or other marks of violence, are frequently asphyxied, and are very generally languid and infirm. They

seem to be threatened with inevitable death, yet in some cases, after vacilating for an hour, the thorax and lips begin to move, and furnish signs of returning life. Some of them gradually improve, and become healthy;—others become more depressed, and respiration being imperfectly performed, fall off rapidly. Owing to this latter cause, their cry is feeble and whining: the eyes are for the most part closed, and with difficulty opened, and the extremities are either paralytic, or capable of very imperfect motion. The duration of these symptoms is longer in proportion as the case is more dangerous. When they proceed from compression of the brain, or injury of the spinal marrow, active stimulants, though apparently indicated, are apt to excite violent congestions of the brain, or even apoplexy. In this manner, the difficulty of the respiration may be perpetuated, although the compression of the brain no longer exists.

After the lapse of some hours, other symptoms are sometimes observed. With the exception of its debility, the infant seems to be doing well, and takes the breast. In some, more or less lividity exists about the mouth, and bluish or livid spots are frequently disseminated over different parts of the body. About the second or third day, rarely later, spasms of the muscles of the face, and sometimes of the extremities ensue; the skin becomes pale and is covered with a cold sweat; the mouth and eyes are half open; the hues of the skin interchange rapidly, being at one moment pale, and the next red or livid; the child cannot nurse, and loses its power of deglutition. Its cry is either extinct, or its voice is feeble, whining, and hoarse—sometimes there is a slight *rale*, or perhaps a trifling cough. The head is drawn backwards and the pupils are slightly dilated, both eyes ranging in the same direction. These symptoms, the author remarks, although urgent, yield readily to proper treatment, and he subjoins, that he had never known the child to die in the first paroxysm. Should the disease take a favorable change, the convulsions abate or cease; the skin becomes warm; the eyes are opened and closed; the neck assumes its natural direction; the *rale* either disappears or becomes slight, and the child regains the power of sucking; but the debility still continues to be very great. In short, if the disease be submitted to appropriate treatment, its most urgent symptoms are mitigated, and the subsequent paroxysms are rendered much milder, and of shorter duration.

Much apprehension may be entertained, on the other hand, if during the first paroxysm, the child should be affected with great debility; if the voice is whining, and loses its roughness, and if the child sleeps with its eyes and mouth half open. Sometimes, even during the remissions, the muscles of the face, eyes and extremities are affected with slight spasms. Difficulty of deglutition exists in bad cases, and the bowels are generally constipated,—seldom preternaturally open. The skin is pale and cold, and frequently livid, this latter suffusion being in general, of very tran-

sient duration. The *rale* increasing in intensity, and attended with an accumulation of mucus in the bronchia, are highly unfavorable symptoms, as they threaten the approach of death by a kind of suffocative catarrh. Life seems in many instances to be destroyed by apoplexy, or suffocation. As the disease advances, the respiration intermits; the convulsions disappear; the livid hue of the surface of the body becomes more conspicuous; the eye balls are rolled upwards, scarcely shewing the pupils, and after each intermission of the respiration, which sometimes continues for a minute or more, the lungs labor, and the inspirations are strong and moaning. The debility increases with each exacerbation, and all the above symptoms become more and more formidable. The powers of sucking and deglutition become gradually extinct, and all the organic functions are so feebly performed, that they seem to be almost suspended. The defect of nutrition, and the collapsed state of the skin, impart to the child a shrivelled or wrinkled appearance. When the condition of the infant is thus unfavorable in the intermission, it generally dies in the next paroxysm, either in a state of apoplexy, or by suffocation, and seldom survives the second or third. The paroxysms at first, only take place daily, but as the disease advances, several occur on the same day, and towards the last, even as often as every two hours. Sometimes indeed, towards the close of the disease, the remissions and exacerbations succeed each other so rapidly, that it is almost impossible to distinguish any interval between them.

This is a brief outline of the description of the disease furnished by the author. He next proceeds to the consideration of some of its most frequent terminations or consequences. Its termination in health and in death, have already been alluded to; but besides these, it may give rise to the following diseases. 1. *Obstruction* or *hepatization* of the lungs. 2. *Chronic cyanosis.* 3. Apoplexy. 4. Suffocative *catarrh.* 5. *Fever;* and 6. *Atrophy.*

This affection of the lungs of new born children, Dr. Joerg thinks, may, like other acute diseases, assume a chronic form, and give rise to considerable changes of structure in the pulmonary tissue, which cannot be removed, except with great difficulty. These changes consist in the development of more or less induration of the substance of the lungs, by which they are rendered impermeable to the air, and respiration has to be performed by the portions of the organ which have escaped the disease. Hence, when this consolidation and obliteration of the air cells exist, the intensity of the sufferings of the infant, and the embarrassment of its respiration, will be in a ratio with the extent of the lungs which may be affected. Where the disease only occupies a limited extent of the organ, as in the milder cases, the child may appear to enjoy good health, and may even live to a good old age; yet such children generally present some symptoms of disturbance in the function of respiration, which are liable to be increased by the slightest causes.

The same causes which the author has assigned, as the principal source of the imperfect development of the respiratory function at birth, he thinks, may not only give rise to the condensation of the lungs, but through the instrumentality of this latter condition, to the development of a state of cyanosis. Thus the rapid delivery of the child, the compression of the brain, or the injury of the spinal marrow, may, as already explained, so far enfeeble the first inspiratory efforts, that they cannot produce a full distension of the lungs. A large proportion of the air cells will, therefore, remain empty and collapsed, and the blood being unable to take its new route from the right side of the heart through the lungs, a large proportion of it will continue to be transmitted through the foramen ovale into the left auricle, and from the pulmonary artery, through the ductus arteriosus, into the aorta, thus preventing these openings from becoming closed, and circulating black undecarbonized blood through the whole system. In this manner then, the obstruction of the lungs, by preventing the blood from flowing through their vessels, renders it impossible for the foramen ovale and ductus arteriosus to become obliterated, and as they are thus kept permanently open, a state of cyanosis becomes associated with the condensation or induration of the lungs. The black undecarbonized blood, moreover, while it gives rise to the livid hues so generally presented by children who are affected with this disease, enfeebles or paralyses the whole of the functions, and renders the organs incapable of acting with sufficient energy, to preserve the integrity of the vital powers.

In a similar manner, he conceives apoplexy, or determinations of blood to the brain, may be induced, which by disturbing the action of that organ, and the nervous system generally, not unfrequently destroy the life of the child immediately, or entail upon it a train of sufferings, which sooner or later prove fatal.

Another frequent consequence of this disease of the lungs is, the development of suffocative catarrh, or asthma. The solidification of a portion of the lung, tending as it does to prevent a free ingress of air into the bronchial cells, necessarily calls forth more violent inspiratory efforts, so that those bronchial tubes and cells which are pervious, as well as the trachea itself, is submitted to a constant source of irritation. This provokes a copious secretion of mucus from the delicate lining membrane of the air passages, which accumulates in them to such an extent, as to embarrass still further the function of respiration, and finally destroy the patient by suffocation. Under such circumstances, the difficulties of the case are still further increased, by the increased obstacle which is in this manner set up in the lungs, against the free transmission of the blood through their vessels, which occasions an accumulation of it within the heart, and a consequent embarrassment of the circulation.

In the same manner, violent inflammation of the bronchia, and even of

the tissue of the lungs themselves, may be induced. The inflammation, which is at first limited to the mucous membrane of the air passages, gradually extends to the proper tissue of the lungs; active fever is induced, and the disease, in some instances, gives rise to hepatization of the organs, suppuration, and other consequences. The functions of the nervous system sympathizing with the affection of the pulmonary apparatus, the activity of the whole organization becomes impaired, in consequence of impaired innervation; great prostration of the vital powers ensues, and death is finally the consequence. Under this form of the disease, the debility increases incessantly; the child loses the power of taking the breast, and of swallowing; it is constantly wakeful and fretful, and sometimes passes days and nights without sleep or a moment's quietude. The infant, after being at first fretful, and affected with more or less difficulty of respiration, is often seized suddenly with universal spasms, which continue with more or less intensity until death. These convulsions, however, differ from those which arise from an idiopathic affection of the brain, in being less severe, and always presenting themselves under a chronic form. They never assume the character of tetanus. Hence the act of nursing is not impeded by trismus, but by the embarrassment of respiration, the pain, and extreme prostration of the vital powers.

When the disease takes this form, Dr. Joerg thinks that the brain is not the seat of any organic affection, but that the disturbance of the nervous system is purely sympathetic. Hence he remarks, that on dissection, adhesions are found upon the surface of those portions of the lungs which the air has penetrated; and that these points are of a purplish hue, while the inflamed bronchia, and the portion of the lung in which they ramify, are of a whitish red color. The brain is found perfectly healthy, and nearly the same condition is observed in all the other parts of the system. p. 27.

While death may be rapidly induced in any one of the ways already described, it sometimes takes place more tardily, in consequence of the development of a general state of marasmus. How this may take place, can be readily conceived, when it is remembered that the small extent of the lungs which is pervious to air, must necessarily deprive the system of a sufficient supply of oxygen, and prevent the perfect elimination of carbonic acid gas, and other materials which are deleterious to the animal economy. The effect of the first must be, to withhold from the system its natural stimulus, and thereby to occasion, not only a general impairment of all the organs, but likewise a serious perversion of the nutritive acts of the system, and a depravity of the properties of the fluids. The imperfect elimination of carbonic acid will, moreover, contribute to the same result. That material, when it exists in too great quantity in the system, proves highly detrimental to the healthy acts of the organs, and frequently gives rise to serious functional disturbance.

The co-operation of these causes, impair innervation, and destroy the regular exercise of the nutritive acts. Important modifications of both the solids and fluids are, therefore, speedily induced; the functions of the organs undergo a corresponding derangement; marasmus or general atrophy finally ensue, and lead on generally to a fatal termination.

We shall not notice the observations of the author relative to the *diagnosis* and *prognosis*. They contain nothing very valuable, that may not be inferred from the foregoing remarks.

The treatment divides itself into preventive and curative. The first must have for its object the avoidance of the causes by which the disease is produced. These are represented to be: 1, a too easy or hasty delivery; and 2, injury sustained during labor, by the brain or spinal marrow. To obviate the effects of the first cause, the author insists upon the parturient female being kept in a perfect state of quietude, the whole process, where the labor takes a proper course, being left to nature. No officious means should be resorted to, with the object of hastening the delivery of the child. The means of preventing injury of the brain and spinal marrow, are those practised by all accoucheurs, and they should never be neglected. But if, notwithstanding all precautions, the development of the disease should be threatened; if the child should cry feebly or not cry at all; if the respiration should be superficial and imperfect, and the infant weak and inactive, means should be employed, without delay, to overcome this state of debility, nor should they be desisted from, until free respiration is established. Frictions should be diligently made upon the palms of the hands, soles of the feet, and the chest and back; the viscid mucus should be carefully removed from the mouth, and sulph. ether applied to the nose and fauces, and poured upon the chest. If after a sufficient delay, the umbilical cord should not pulsate, it should be tied and divided, and the infant put into a warm bath, where all the other means should be renewed. Injections should be thrown into the bowels from time to time, and every means of promoting perfect respiration should be called into requisition, and persevered in as long as can be done with safety.

When the difficulty depends upon injury of the brain or spinal marrow, more caution will be requisite. Too much stimulation under such circumstances might prove hazardous, and it will consequently be necessary to confide in more gentle means, and to apply them somewhat more gradually. The warm bath, of the temperature of 30° R. and affusions of warm water, frequently repeated, will contribute much to establish free respiration, and should be diligently employed conjointly with other remedies, for an hour or more, unless the desired effect should be sooner induced. Emetics, especially, will tend powerfully to relieve the lungs, by stimulating them to more vigorous action and promoting respiration. When not contraindicated, they should therefore be employed, either in nauseating doses, or so as to excite full vomiting. For this purpose, the

best articles will be, two or three grains of Ipecac., a drachm of the oxymel of squills, or half a grain of tart. Antim. Where there are cerebral congestions, however, these remedies cannot be employed; but calomel will be found useful under such circumstances, in relieving both the primary cerebral, and the consecutive pulmonary affection. It acts by gently stimulating the mucous membrane of the intestines; and eliciting a free secretion from its surface, thus deriving from the brain, and transferring the determination from the lungs to the bowels. In this way, the action of these latter organs will be relieved from restraint, and the abundant mucous secretion which fills the bronchial tubes, will be diminished in quantity, and removed by expectoration. The warm bath will be a most excellent adjuvant, and to render it more efficacious, it may be made a little exciting, by infusing in the warm water some aromatic plants; as thyme, marjorium, &c. When the infant is very feeble and cannot nurse, baths of milk and water, or pure milk, should be constantly employed, until it becomes able to derive nourishment from the mother. If the means already directed should not prove adequate to overcome the cerebral congestions, a sinapism or blister, an inch in diameter, should be placed behind the ear, or between the shoulders. When these remedies have made a favorable impression upon the disease, little more will be necessary afterwards, than to use the warm bath occasionally, to invigorate the skin, and promote the healthy play of the lungs. But should the symptoms assume a more threatening aspect, the calomel must be repeated frequently, with the view of relieving the head and lungs by derivation, and sinapisms should be applied, from time to time, to the neck, throat, chest, and extremities. The bath should also be continued, and when the debility is very great, repeated every two hours. In order to ensure the full distension of the lungs, and thus more effectually establish respiration, it might perhaps be useful to inflate them by means of a tube, passed through the nose.

Dr. Joerg has detailed several cases of the disease, two of which were successfully treated. We cannot, however, follow him further. We have rather attempted to present an analysis of his *brochure*, than a criticism upon its contents. We have derived considerable pleasure from reading it, and some advantage; and although there are some of his opinions to which we cannot entirely subscribe, we must do him the justice to say, that he has furnished a very good description of a disease of infancy, which does not seem to have been very well understood by his predecessors. Many of them have certainly described most of its leading characters, but they have generally considered it as a state of asphyxia, dependent upon simple pulmonary congestion. Mauriceau, Capuron, Billard, &c. have, however, described a disease which they have denominated congenital pneumonia, which bears some resemblance to this, and Billard has noticed particularly the state of respiration observed in the disease, but has not pointed out the solidification of the lungs which attends it.

An Inquiry into the Claims of Dr. William Harvey to the Discovery of the Circulation of the Blood, with a more equitable retrospect of that event. To which is added, an Introductory Lecture, delivered on the 3d of November, 1829, in vindication of Hippocrates from sundry charges of ignorance preferred against him by the late Professor Rush. By JOHN REDMAN COXE, M.D., Professor of Mat. Med. and Phar. in the Univ. of Penn. &c. pp. 258. Philad. 1834. C. Sherman & Co.

HERE is a work truly unique in its character,—a perfect omnium gatherum of all things ever said or thought in reference to the circulation of the blood. The surprise of the reader will be doubtless equal to what was our own, when we first glanced over the ominous title page. What, Harvey not entitled to the glory of having first discovered the circulation of the blood! Yes, gentle reader, this was the startling intelligence which we fancied was about to burst upon us, when we first read the author's announcement. We took for granted, that the learned Professor had exhumed some mouldering papyrus from the ruins of former times, containing the intelligence that the glory of discovering the circulation of the blood was due to some renowned, but forgotten sage of antiquity. We almost fancied the laurels dropping from the brow of the immortal Harvey, where they have been so long suffered to repose; but our anxiety was soon tranquillized by the discovery, that all the author had to offer was, the oft told story of anastomosis and porosities between the arteries and veins, and what is well known, and has been generally conceded,—that the pulmonary circulation was understood by Servitus, Colombus, Cæsalpinus, and even Galen, long before the time of Harvey. Many of the predecessors of the latter, it has been always acknowledged, seem to have had some idea of a circulation, but that they fully explained or demonstrated it, has never been proved satisfactorily, nor has Professor Coxe, in our opinion, been more successful.

His book evinces a degree of labor and research unequalled in the annals of medical science in our country, and we can confidently recommend it to the curious. As to the "cui bono," we have nothing to say, except that every truth has its interest, and why not the important one, that Harvey was not the discoverer of the circulation? Our author may be accused of a blind devotion to the divine dictum of Hippocrates and Galen;—some perhaps may allege a charge of pedantry. This is not our business. We feel proud, that the oft repeated assertion, that American physicians are ignorant of the literature of their profession, cannot be sustained. Professor Coxe has fully vindicated us against these aspersions, and his book will long serve as a monument, to proclaim to our transatlantic brethren, that we too know how to dig from the rich mine of antiquity. For ourselves, we most cordially thank the Doctor for his labors, and when we write a book on the circulation of the blood, we mean to show our respect still farther, by availing ourselves of his reraseches.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. *Remarks on an Anastomosis recently observed outside of the Liver, between the Vena Portæ and the Vena Cava inferior, by* Professor Retzius, of Stockholm.—In the spring of 1832, being employed in making preparations of the venous system, I met with various venous branches, which, coming from the duodenum, left colon, and rectum, formed a communication with and united themselves to the vena cava inferior. Having put a ligature on the vena portæ, where it enters the liver, I injected this vein below the ligature with an injection of a particular colour: in the same manner I filled the vena cava inferior, with an injection of another colour. In displaying the ramifications of the injected veins, I observed several small branches of the same coming from the duodenum, and emptying themselves into the neighbouring trunk of the *vena cava inferior*. Other venous branches coming from the left portion of the colon, joined the emulgent vein of the left kidney. Further, I observed, that some veins coming from the rectum, united themselves to the internal venous network of the organs of generation. These latter were the largest and most numerous. As the vena portæ and the vena cava were filled with differently colored injections, it was easy to distinguish the anastomosing branches by which they were connected. These observations, made on the body of a boy aged five years, were confirmed in two other subjects of the same age. A very minute examination disclosed the existence of a thick network of very minute venous twigs in the cellular membrane outside the peritoneum. The veins with which this network communicated were connected on the one hand with the vena portæ, on the other with the vena cava inferior. When the peritoneum is fresh, thin, and transparent, the largest of these vessels can be seen and traced with the naked eye. When the injection succeeds well these vessels may be seen on the posterior parietes of the abdomen proceeding to join the veins of the colon. They at the same time form numerous anastomoses with the veins of the kidnies, branches of the pelvic veins, as well as with other veins which empty themselves into the inferior cava, From this it appears that in the human body a communication exists between the vena cava inferior, and the vena portæ, which, so far as I am aware, has not yet been remarked by any writer. It can be most satisfactorily demonstrated by simultaneously injecting the trunks of the vena portæ, and of the vena cava inferior. The latter may be often successfully injected, even to its minutest branches, for its valves do not constantly present an obstacle capable of impeding the progress of the injected fluid. In this manner I once succeeded in filling the veins of the rectum with an injection from the vena cava inferior. The fine injection passed from the cava chiefly into the venous network of the cellular and muscular tunics of that intestine, while its mucous membrane on the contrary, was injected with the fluid that had been thrown into the vena portæ. I have made similar observations on the duodenum, and on some portions of the colon. It is more than probable that a similar distribution of vessels occur in all vertebrated animals, in many of whom indeed Jacobson has already announced its existence.

Professor Retzius is of opinion, that these numerous venous anastomoses in the various networks of vessels he has observed in the peritoneum, afford an explanation of the relief obtained by the application of cupping glasses or

leeches to the abdominal parietes, in cases where the bowels of the peritoneum are inflamed, for the blood thus drawn must influence not merely the circulation in the peritoneum, which lines the abdominal parietes, but also the system of the vena portæ.—*Zeitschrift für Physiologie,* B. 5. H. i. p. 105.—*Dublin Journal, July,* 1834.

2. *Lymphatics in the Umbilical Cord.*—In the last number of this Journal, we inserted a notice of Fohman's discovery and successful injection of lymphatics in the placenta and funis of the human race. More recently a similar investigation has been undertaken, and with an equally satisfactory result, by Dr. Montgomery of this city, who has succeeded in injecting with mercury great numbers of these delicate vessels running along the cord, and for the most part, following the spiral course of the umbilical arteries.—*Ib.*

[In the last number of the Baltimore Medical and Surgical Journal, Dr. Roberts of this city inserted the case of a woman who had three mammæ, or nipples. The following case noticed by Professor Tiedemann, is of the same character.]

2. *Irregular Formation of the Breasts.*—Tiedemann remarks on this subject: "The human female presents irregularities of the breast not less frequently than other mammalia. In addition to the instances already recorded, I myself have observed the following:—In 1824, Maria R., born in Hagenfield, near Pforzheim, was admitted into our Lying-in Hospital. Her left breast was furnished with two nipples, each of which was enclosed within a separate areola. The supernumerary nipple was situated about three finger's breadth beneath the other. This breast on the whole was not larger than that of the right side. She was delivered of a son, and milk came in as great abundance from the supernumerary as from the other nipples.

In the year 1825, the body of a girl was brought into our dissecting room; she was about twenty years old, her breasts were beautifully formed, and well developed, but each furnished with two fully formed nipples, surrounded by a common areola. In 1829, the wife of a Dutch soldier named Walter, called for the purpose of consulting me, and during the examination of her chest, I observed, that the left breast was provided with two nipples, each of which gave milk, *and were surrounded with a common areola.* She assured me that her mother had exactly the same conformation.—*Ib.*

4. *Cure of Diabetes Mellitus with Creosote.*—The following is a short account from *Hufeland's Journal,* for Feb. last, of an eighth case of the above disease, treated by Professor Berndt, of Driefswaldt, after having treated the preceding seven with opium, emetics, arsenic, bleeding, &c., all unsuccessfully. The seven all died. The eighth patient was a man fifty years of age, who daily passed seven and a half pints of urine, which, when analyzed, was found to contain a good deal of sugar. There were considerable thirst and appetite, and little sleep, but no hectic fever had appeared. An emetic was at first administered, and the patient then put on Rollo's diet, but without benefit. Finally, he was directed to take daily eight drops of creosote in sixteen pills of gum arabic. The thirst and appetite were soon reduced, the excretion of urine was brought down to three pints, and then to two. The dose of the remedy was now increased, and the animal diet suspended after three weeks employment. The urine now contained much less sugar, and began to offer some traces of urea. From this period the quantity of urine rapidly diminished, the sugar gradually disappeared, and the excretion finally assumed its natural qualities, and was discharged in regular quantity: the patient in a word was perfectly cured.—*London Lancet, June,* 1834.

5. *Rupture of a Varicose Tumour in the Vagina during Labour.*—A woman, about thirty years old, whose previous pregnancies and labours had not been attended by any thing extraordinary, observed, at the end of her third pregnancy, a soft tumour protruding from the vagina. The midwife was called in, and recommended bleeding, which relieved the patient, but did not remove the disease. The tumour continued to enlarge, but the woman was well in other respects, and never complained of pain. During labour, the very moment the head entered the pelvis, the tumour broke, and discharged six or seven pounds of blood. The patient immediately fainted, her extremities became cold, and she remained devoid of consciousness. I was sent for instantly, (says Dr. Steudel, the narrator of the case,) and went to her, accompanied by an accoucher. All our efforts to revive her were useless: the tumour was empty, and its cavity big enough to contain one's fist. We endeavoured to apply the forceps, but, as it always slipped off, turning was practised. The child, when it came into the world, was dead, and had a spina bifida.—*Archives Générales, from the Medizinisches Correspondenz--Blatt.--Medical Quarterly Review, July,* 1834.

---

6. *Remarkable softening of the Bones.*—M. Roberti presented to the Anatomical Society, an example of ramollissement of the bones observed in the case of a female who had laboured under symptoms of paraplegia, and had been affected with a gangrenous slough over the sacrum. The whole of the bones of the skeleton were so soft, that they could be flexed in every possible direction, and broken by the slightest force. They could be cut with the same ease as common cartilage, and those of the cranium were so soft, that that cavity was opened with a common scalpel. The cavities of the long bones, which were much attenuated, contained a soft, pulpy, red coloured substance, in which delicate striæ resembling pus could be discovered. The osseous and medullary tissues were, however, highly vascular. The neck of the femur had entirely disappeared, and its head reposed directly upon the greater trochanter, upon which it moved. It was remarked by M. Roberti that the apparent paraplegia with which the patient was affected, and which was attributed to the eschar over the sacrum, was partially owing to this destruction of the neck of the bone.—*Archives Générales, Avril,* 1834.

---

7. *New Method of Plugging the Nostrils in cases of Epistaxis.* By Dr. Miquel.—A piece of the intestine of a pig of medium growth, or of any other animal of proper size, about twelve or eighteen inches in length, should be tied firmly at one end, and cut even with the ligature. By means of a gum elastic sound, or female catheter, this should be conveyed through the nostril, until it is arrested by the posterior wall of the pharynx. By inflating it with air, the tickling of the fauces occasioned by the distension of the posterior extremity of the intestine, will excite coughing, by which the inflated end of the gut will be projected through the mouth, where it should be seized by the surgeon. While an assistant holds the end of the intestine which hangs from the nose, a thread should be attached to the posterior ligature, and a second ligature applied to the posterior part of the intestine, far enough from the first to form a globular mass of the inflated portion, as large as the end of the thumb. Then drawing the intestine forward through the nose, this globular tumour should be carried back behind the palate, where it should be drawn forwards, by pulling at the anterior end of the gut, to wedge it firmly in the posterior nares. This done, the gut is to be again inflated, and the air forced back firmly against the outer opening of the nostril, where it must be confined by tying the gut about three fourths of an inch from the nose. The thread attached to the posterior ligature will serve to withdraw the gut, when it becomes necessary to remove it. In the interim, it may be attached to the anterior end.—*Lancette Francaise, Avril,* 1834.

8. *Singular case of a Foreign Body found in the Heart of a Boy.* By Thomas Davis.—On Saturday evening, January the 19th, 1833, I was summoned to attend William Mills, aged 10, living at Boughton, two miles from Upton. When I arrived, his parents informed me that their son had shot himself with a gun made out of the handle of a telescope toasting-fork. To form the breech of the gun, he had driven a plug of wood, about three inches in length, into the handle of the fork. The touch-hole of the gun was made after the charge of powder had been deposited in the hollow part of the handle; the consequence was, that when the gunpowder exploded, it forced the artificial breech, or piece of stick, from the barrel part of the gun with such violence that it entered the thorax of the boy on the right side, between the third and fourth ribs, and disappeared. Immediately after the accident the boy walked home, a distance of about forty yards.

By the time I saw him, he had lost a considerable quantity of blood, and appeared very faint. When I turned him on his right side, a stream of venous blood issued from the orifice, through which the stick entered the thorax. Several hours elapsed before any degree of re-action took place. He complained of no pain.

For the first ten days or a fortnight after the accident, he appeared to be recovering, and once, during that time, walked into his garden and back, a distance of about eighty yards; and whilst there he amused himself with his flowers, and even stirred the mould. He always said he was well, and was often cheerful, and even merry. There was no peculiar expression of countenance, excepting that his eyes were rather two bright.

After the first fortnight he visibly emaciated, and had frequent rigors, which were always followed by faintness. The pulse was very quick. There was no cough nor spitting of blood. The secretions were healthy. He had no pain throughout his illness.

He died on the evening of the 25th of February, exactly five weeks and two days after the accident occurred. At the examination of the body there were present the Hon. W. H. Coventry, Mr. Walker, the father of the boy, Mr. Sheward, surgeon, and myself.

On opening the thorax, a small cicatrix was visible between the cartilages of the third and fourth ribs, on the right side, about half an inch from the sternum.

There was no effusion of blood, or of serum, into the sacs of the pleura.

The lungs appeared quite healthy, excepting that there was a small tubercle in the right lung, and at its root, near to the pulmonary artery, a small blue mark in the cellular tissue, corresponding in size with the cicatrix on the parietes of the chest.

Heart and Pericardium.—When the pericardium was divided, about half an ounce of serum was found in it.

The heart, externally, appeared healthy.

When an incision was made into the heart, so as to expose the right auricle and ventricle, we were astonished to find, lodged in that ventricle, the stick which the boy had used as the breech of the gun, the one end of it pressing against the extreme part of the ventricle, near the apex of the heart, and forcing itself between the *columnæ carnæ* and the internal surface of the heart; the other end resting upon the auriculo-ventricular valve, and tearing part of its delicate structure, and being itself encrusted with a thick coagulum as large as a walnut.

We searched, in vain, for any wound, either in the heart itself, or in the pericardium, by which the stick could have found its way into the ventricle.

Observations.—This case strikes me as one of the most interesting on record. In the first place, that this child should have survived such an accident, as the lodgment of a stick, three inches in length, in the right ventricle, and have

been afterwards equal to so much muscular exertion as he was, appears wonderful, especially if we consider the mechanical difficulty which the heart had thereby to encounter in carrying on the circulation of the blood.

In the next place, it appears somewhat difficult to point out how the stick found its way into the right ventricle of the heart. There was no wound, nor remnant of a wound, either in the pericardium, or in the muscular structure of the heart. The stick seems to have entered the mediastinum, without wounding the anterior part of the right lung, but to have wounded the posterior portion of the lung near its root. What became of the stick afterwards is uncertain, excepting that we know it found its way into the heart.

I am inclined, myself, to think that the stick, after wounding the lung, passed into the vena cava, and was carried by the stream of blood, first into the right auricle, and then into the right ventricle, where it became fixed, in the manner before specified.—*London Medical Gazette, July*, 1834.

---

9. *Treatment of Scrofula.* By Dr. PITSCHAFT, of Baden.—Dr. Pitschaft considers factitious cinnabar, cicuta, cinchona, acorn coffee, and in obstinate cases, minute doses of merc. precipit. rubr. and salt bathing as specifics in the treatment of scrofula, and its formidable products,—spina ventosa, paedarthrocace, coxalgia, &c.

To a child two years old he prescribes a portion of the following powder every morning, an hour after breakfast, and another again in the evening. ℞. cinnab. fact. ℈i. Herb. cicut. gr. ij. merc. precip. rubr. gr. i. Sacch. abb. ʒ ss. ft. pulv. et divid. in xx. part. æq. For those of greater age he increases the quantity of cicuta to 10, and of the cinnabar to 40 grains. The mercurial preparations, as corrosive sublimate, and red precipitate, are very well borne by young children, when administered in minute doses. In obstinate cases he employs frictions with the ointment of borax, and of iodine; and in scrofulous ophthalmia, he uses the former of these ointments, while the above medicines are administered internally. In very obstinate cases of this affection, the *Bals. Ophth. Gr.* is substituted for the borax ointment. Under ordinary circumstances the acorn coffee and the saline baths will consummate the cure; but in obstinate cases, when there is great cachexie, the cinchona is indicated. It is absolutely necessary to take the disease at its commencement, in order to secure an effectual cure, and if this be done, the most happy results may be expected. The above powders should be continued two, three, four, or more months, according to circumstances, and where the stomach is enfeebled, one or two grains, according to the age of the patient, of the watery extract of aloes should be added to the powders. The application of leeches to scrofulous glands is highly objectionable, and the use of the knife is still more so.

[*Hufeland's Journal für Praktisch, Heilkunde, Oct.* 1833.

---

10. *Longevity.*—The case of a shepherd of Potolski, is reported in the Petersburger Zeitung, who lived to the age of 160 years. One of his sons attained the age of 120; another 97.—*Hufeland's Journal für Praktisch. Heilkunde, Sept.* 1833.

---

11. *Chronic Rheumatism cured by surrounding the limb with the green leaves of the common Birch, (Betula Alba.)*—Dr. Augenstein reports the case of a young man who had been sorely afflicted with rheumatism from childhood, which had rebelled against all treatment. Having been informed that the birch leaves had relieved other persons similarly affected, he obtained permission from his physician to give them a trial. A sack was provided long enough to extend from the foot to the middle of the thigh, which was filled with the fresh leaves perfectly free of moisture. Into this the patient thrust his whole leg when he retired to rest at night, and so adjusted the sack and leaves that

the whole limb was completely surrounded. The whole apparatus was then carefully bound upon the member so as to prevent any displacement. On calling to inquire after his patient next day, he found him in high spirits, and ascertained from him that he had rested comfortably, except that he had been somewhat incommoded by the heat and profuse perspiration excited by the leaves. On examining the interior of the sack, it was found considerably heated, and the foot, leg and thigh completely bathed in perspiration, their aspect being similar to that which is presented by a part which has for some time been bathed in warm water. The stiffness of the limb was already much diminished, and by a repetition of the remedy, the disease was completely removed. A second case was treated by Dr. Augenstein by the same process, and with a happy result.—*Rust's Magazin für die gesammte, Heilkunde,* 1833.

12. *Hypertrophy of the Cranium.*—M. Breschet lately presented to the Academie Royale de Medécine, the cranium of a child, aged 8 months, who had died of convulsions. At some points the cranial bones were at least an inch in thickness. This hypertrophy, so rare at this early age, was confined to the vault of the cranium, the base, and the bones of the face, not being affected.

13. *Improved process for the preparation of Kermes Mineral.* By Just Leibig.—Four parts of the powdered sulphuret of antimony, are mixed with one part of dessicated carbonate of soda, and submitted to a red heat until the mass attains a tranquil state of fusion. Care must be taken not to employ an iron instrument to stir the mixture. The fused mass should be poured upon a tile, when on cooling, it will fall into a kind of powder susceptible of a very minute division. A portion of this mass, finely pulverized, is to be boiled for one hour, with a solution of two parts of carbonate of soda in sixteen parts of water. The product is then to be filtered, and the solution left to cool. The kermes is precipitated, and promptly separated from the supernatant fluid, and falls to the bottom in form of a heavy powder. The mother liquor should be decanted and boiled a second time with the residue of the first process, and this operation may be repeated until the yellow or brown crocus can be no longer obtained, a portion of kermes being precipitated after each boiling.

Leibig represents that more kermes is obtained by this process than by that of Cluzel; that it is of uniform strength, of a bright fire color, and a crystaline appearance. He remarks, however, that kermes should never be washed with hot water, which decomposes it, and acts much more upon the oxide of antimony than upon the sulphur. Geiger and Hesse had previously observed, that if freshly prepared kermes be suddenly boiled, it will be rapidly decomposed, the sulphur passing off in form of sulphureted hydrogen gas, leaving only the oxide of antimony behind.—*Journal de Pharmacie, Mars,* 1834.

14. *Tartar Emetic Ointment for Indolent Buboes.*—At a sitting of the Academie Royale de Medécine, in February last, M. Yvan, Jr. addressed a communication to that body, stating that indolent buboes, which had rebelled against iodine, blisters, &c. yielded readily to the tart. emetic ointment, of the strength of one drachm to the ounce.

15. *Precocious Puberty in a female child who Menstruated at the age of nineteen months.*—By Dr. J. F. Diffenbach. This remarkable child was of the natural size and form at birth. After the first month it began to grow rapidly, and especially in thickness. At nine months it was about the size of a child of a year and a half old, and about this period the mother remarked the escape of a bloody fluid from the vagina, which amounted altogether to about two drops. As it continued to grow, it experienced, at the age of eleven months, a second discharge from the same part, somewhat more copious than the first.

At this period, the mother discovered some enlargement of the mammary glands, and the development of hairs upon the mons veneris. The bloody discharge took place a third time at the thirteenth, and a fourth at the eighteenth month. The first blood had a light, the last a dark color.

The length of the child at this period was three feet; the breadth across the shoulders nine inches. The circumference of the thorax below the arms was one foot ten inches; the circumference of the pelvis one foot ten inches, and the distance from one crista of the ilium to the other, at its anterior part, seven inches.

In intellectual development, the individual did not differ from other children of the same age. The precocious development of the sexual parts, which were covered sparsely with short thick black hair, the early appearance of the menstrual evacuation, and the enlargement of the mammary glands are very remarkable circumstances. Still there was no manifestation of venereal desires. Both parents were weak emaciated individuals, who followed the trade of weaving.—*Meckel's Archives für Anatomie und Physologie.*

---

16. *Method of operating for strangulated Hernia.* By Dr. Colliex, of Turin.—An incision is commenced a good half inch above the upper orifice of the canal, the point of which will be indicated by the projection of the viscera contained within the funnel-like arrangement of the neck of the sac. This incision should be extended to the bottom of the hernial tumor, if it should be considered necessary to open the sac,—only an inch below the inferior orifice of the canal, if this latter procedure should not be thought necessary. The integuments being thus divided, instead of proceeding to expose the sac in the usual manner, the aponeurosis, or expanded ligament which forms the anterior wall of the hernial canal should be laid bare, which may be done by dividing the cellular tissue by a bold sweep of the knife, as there is nothing which it would be dangerous to cut. While an assistant draws the hernial tumor downwards, the surgeon proceeds to pinch up the fibres which compose this aponeurosis, in a pair of dissecting forceps, first commencing with those which form the inferior orifice of the canal. Each fasciculus being thus put upon the stretch, is to be divided in succession, with a straight bistoury, commencing with those below and proceeding upwards, until the whole extent of the anterior part of the canal is laid open. On arriving near the superior orifice of the canal, the tip of the index finger should be insinuated, if possible, between the contour of the opening and the neck of the sac, to determine the situation of the epigastric artery, and direct the dilation of the stricture. If the hernia is recent, and small, an attempt should then be made to reduce it without dividing the sac, care being taken to prevent the sac from returning with the protruded organ. If the reduction cannot be accomplished, the sac must be opened in the usual manner. Having opened the sac in this manner, before the stricture is divided, it should be drawn gently downwards, in order to bring that portion of the neck of the sack which is situated above the superior opening of the canal, below it. The edges of the divided sac should then be seized on each side with dissecting forceps, and as near to the upper part of the incision as possible, and drawn downwards and outwards by assistants, while another assistant depresses the viscera, so as to separate them as much as possible from the anterior part of the neck of the sac, which is then to be divided by cutting from without inwards and from below upwards,—of course towards the contents of the sac, and in a direction the reverse of that usually pursued. All constricting force being thus overcome, the intestine may be drawn downwards, and the finger introduced in order to ascertain if there is any internal stricture. It only remains to return the protruded organ, and dress the wound in the usual manner.

The advantages of this operation are, according to the author, that the character of all the parts which have to be divided is previously determined,

either by the sight or touch, and consequently less hazard is incurred of inflicting injury, to which there is so great a liability, in operating in the usual manner, when the parts divided are screened from the view of the operator.—*Revue Medicale, Avril*, 1834.

---

17. *Ossification of nearly the whole extent of the aorta and pulmonary artery mistaken for an aneurism of the heart.*—A female, aged 73, entered the hospital, St. Louis, affected with a dry, sallow, discolored state of the skin, except that of the face; œdema of the feet, legs, and posterior part of the thighs; a disagreeable cold and pricking sensation of the lower extremities; strong and habitual throbbings about the heart, which however were regular, especially when she remained quiet. In her youth, she had enjoyed excellent health, but for five years previous to the date of her admission, she had suffered much from embarrassment of her respiration, extreme liability to take cold, and frequent and violent palpitations of the heart. On the examination of her body, which was made after death, serum was found effused into the abdomen and thorax; the heart was perfectly healthy; the tricuspid valve presented some small points of ossification; one of the semilunar valves presented a small osseous concretion, about a line and a half in diameter, and the pulmonary artery, from its origin to its bifurcation, as well as the aorta, from the arch to the second lumbar vertebra, were ossified throughout nearly their whole extent.—*Archives Générales, Fev.* 1834.

---

18. *Of the Chemical properties of the Secretions in Health and Disease, and of the existence of Electrical Currents determined in organized bodies by the acidity and alkalinity of the membranes.* By M. Donne, *Chef de Clinique Medicale a l'Hopital de la Charité.*—1. From the whole surface of the skin is secreted an acid humor. The sweat, however, instead of being, as is generally said, very acid under the arm-pits, and round the genital organs, is, on the contrary, as alkaline in these parts as at the toes.

2. The digestive canal from the mouth to the anus secretes an alkaline mucus, except in the stomach, where the gastric juice is very acid. Thus the saliva and the mucus of the œsophagus, as far as the cardia, are alkaline in a healthy state, and become acid only in consequence of disease. From the pylorus to the end of the intestinal canal, the mucus furnished by the mucous membrane itself is alkaline.

3. Serous and synovial membranes all secrete an alkaline liquor in a normal state, which in certain diseases sometimes becomes acid.

4. The external acid and the internal alkaline membranes of the human body represent the two poles of a pile, the electrical effects of which are appreciable by the galvanometer. Thus, in placing one of the conductors of the instrument in contact with the mucous membrane of the mouth, and the other in contact with the skin, the magnetic needle deviates fifteen, twenty, and even thirty degrees, according to the sensibility of the galvanometer, and its direction indicates that the mucous or alkaline membrane takes negative electricity, and the cutaneous membrane positive electricity.

Independently of these two great surfaces presenting opposite chemical states, there exist other organs, the one class of which may be called acid, and the other alkaline, and which produce the same result; between the stomach, for instance, and the liver of all animals, extremely powerful electrical currents are found.

5. M. Donné has observed electrical phenomena of the same kind in vegetables, of which he gives examples, but electrical currents in vegetables are not produced by the acid or alkaline state of the parts as in animals, because the juice of fruits, at least such as M. Donné examined, is throughout more or less acid. Accordingly, however, to the beautiful experiments of M. Biot, the juices which arrive by the pedicle are modified on some part of the fruit,

and it is perhaps to this difference of the chemical composition of the juices of the two extremities that the electrical phenomena are to be attributed.

6. The acid humors of the economy may become alkaline, and *vice versa.*

7. Acidity is usually the result of inflammation, properly speaking, which, may be produced by sympathy in an organ situated at a distance from the inflamed point. Thus the saliva becomes very acid in inflammation of the stomach.

8. The acid which is developed in inflammation appears to be most frequently the hydrochloric. The presence of this acid produces coagulation of the albuminous part of the lymph, or of the serosity which abounds in inflamed parts. The false membranes in the serous cavities, the albuginous spots of the eye, the coagulable lymph of wounds, the thickenings of certain organs, and many other morbid productions resulting from inflammation, in which there is found by analysis only albumen, more or less coagulated, are owing to this.

Pus itself is produced by the action of the acid on albuminous lymph. It is a kind of union of the acid with the albumen. If free acid be not found in the liquids effused on the surface of inflamed organs, it is owing to the humors of the body being very alkaline, and containing sufficient potass and soda to neutralize the acid. In the memoir, however, of which this paper is a summary, M. Donné has cited many cases in which *pus* and even the serum effused into the abdomen in consequence of *peritonitis* were found acid. An analogous case was reported to M. Donné by M. Dumas, and another is mentioned by Berzelius in his treatise on chemistry.

9. The changes in the chemical nature of the secretions react on the different systems of the economy, forming an interesting order of lesions and symptoms in connexion with the etiology, the diagnosis, and even the treatment of diseases. These changes, according to M. Donné, produce modification of the electrical currents which exist between the different organs of the economy.—*Journal Universel.—Edinburgh Med. and Surg. Journal, July,* 1834.

---

19. *Conclusions of* M. M. Breschet *and* Roussil *relative to the structure and functions of the skin.*—If this cursory recital has been correctly understood, it would appear to result, from our long and difficult labors, that we have discovered numerous conformations of the highest importance, which will produce greater precision and exactitude in the appreciation of the laws which govern inervation, perspiration, or cutaneous exhalation, coloration of the skin, production of epidermic tissue and their appendages.

Thus we have endeavoured to prove, first, that there exists in the skin an apparatus adapted to the secretion of perspirable matter, composed of a glandular parenchyma which elaborates this liquid, and of ducts by which it is exhaled. These excretory canals are arranged in a spiral manner, and open very obliquely beneath the scales of the epidermis. Secondly, that the organs of absorption differ in some respects from the lymphatic vessels or veins, with which they however appear to communicate. These organs present the form of transparent ducts, which possess an extreme fragility, and form ramifications or little communicating loops, in which we were unable to detect any terminal orifices adapted to absorption. This circumstance inclines us to believe that this function is incapable of being performed by suction, but results rather from imbibation, or from a mechanism analogous to that of endosmosis. Thirdly, that the medium in which these canals are distributed is a substance produced by true secretion, which being strongly hygrometrical, form a body, by means of which the phenomena of that which we still call absorption are capable of being effected. This absorption is more promptly and easily performed by the mucous surfaces, only because in these tissues the mucosity, which we compare in many respects to the epidermis, is less dense, and more readily

mixed with the liquids which are required to be absorbed. Fourthly, that the papillary bodies are essentially nervous, and that the filaments, which enter into the composition of each papilla, do not terminate in the formation of a bundle, in which each twig would be free and isolated, but the ramusculi appear to present terminal loops or arches. Fifthly, that the papillæ are enveloped by a distinct membrane, and by a layer furnished by the corneous substance of the epidermis. Sixthly, that sanguineous vessels, much less voluminous than the nervous filaments, penetrate this substance. Seventhly, that the different horny layers of the epidermis constitute a peculiar apparatus composed of an organ of secretion, and of a product arranged in fibres, which are at first perpendicular to the cutis, but which afterwards become horizontal. These fibres or little twigs result from a superposition of small scales, and the epidermis, properly so called, is only the extremities of these fibres, which are the most distant from the cutis. Eighthly, that absorbent canals and nervous papillæ are expended in this epidermic substance formed by squamous prolongations. Ninthly and lastly, that, independent of the secretory apparatus situated in the epidermis, there exists in the skin, towards the external surface of the cutis, a small apparatus for the secretion of the coloring matter.—*London Medical and Surgical Journal, April,* 1834.

20. *Colchicine.*—This alkali is stated by MM. Geiger and Hesse, who have succeeded in obtaining it, to crystallize in slender spires, and to possess an extremely bitter taste. Taken into the nostril it does not excite any irritation, whilst the least portion of veratrine causes violent sneezing: it is, however, equally poisonous with the latter, as the following experiment showeth. A tenth of a grain, dissolved in a small portion of weak alcohol, was given to a cat about six weeks old; in a short time froth appeared about the animal's mouth, and in the course of an hour it was violently purged; it then vomited, tottered in its walk, fell, rolled from side to side, uttered moaning sounds, and appeared agitated with convulsive movements. These symptoms increased in severity, and caused death at the end of twelve hours. The intestinal canal was found inflamed, and there was effusion of blood throughout its whole extent. For the purpose of comparing the effects of this substance with veratrine, the twentieth part of a grain of the latter was given to a cat a little younger than the former;—the animal was affected in the same way, but more rapidly, for it died in ten minutes. The superior part only of the œsophagus was found inflamed, an appearance which was not observed in the cat poisoned by colchicine.—*Journal de Pharmacie.—Ib.*

21. *Hyoscyamine.*—It is from the seeds of the hyoscyamus niger that this substance, which is formed in transparent needle-shaped crystals, is extracted. Its savor is acrid and disagreeable, like that of tobacco, and its actions are equally poisonous with that of *atrophine.* The least portion placed on the eye causes a dilatation of the pupil, which remains for a considerable length of time. In a dry state it is not an alkali, but by the addition of water it soon becomes so.—*Ib.*

22. *Daturine.*—The same chemists, MM. Geiger and Hesse, have extracted this aklali from the *datura stramonium.* It crystallizes in the form of small, colorless, and brilliant prisms; it is free from odor; its taste is at first slightly bitter, but afterwards very acrid; it is very poisonous, one eighth of a grain sufficing to kill a sparrow in three hours. It possesses an action over the pupil of the eye similar to that of hyoscyamine.—*Ib.*

23. *Codeine.*—According to M. Barbier, the codeine of M. Robiquet differs in many respects from morphia and opium: an ounce dose, containing a grain of this preparation, administered either in syrup or in an aqueous solution, acts

principally upon the nervous centres of the great sympathetic, especially in the epigastric region. In gastralgia, where the patient complains of pain and weight under the inferior end of the sternum, increased upon pressure, perspirations, palpitations, hiccup, nausea, syncope, &c. the syrup is of the most essential benefit, almost always giving relief. This substance generally produces calm sleep, very different from that obtained from opium. It never occasions weight in the head, numbness or congestion of the brain, but appears on the contrary to create exhilarating sensations. At the Hôtel Dieu, at Amiens, M. Barbier has administered it to women who were suffering at the same time from gastralgia and nervous pains in the head, loins and thighs. The stomach was much benefited by its use, but it did not appear in the slighest degree to exert any influence on the latter.—*Ib.*

---

24. In the last number of our esteemed cotemporary, the American Journal of the Medical Sciences, Dr. Harris has reported some very interesting cases of neuralgia treated by galvanism, administered by means of Mansford's plates. We have employed the same treatment in several cases of chronic disease, with a very happy result, and within a few days in a case of Asthma. The following are the directions given by Mansford:

"It was said, that in order to fulfil the indication stated at the commencement of this section, it was desirable to establish a negative point as near the brain as possible, and a positive one in some distant part of the body. Accordingly, a portion of the cuticle of the size of a sixpence being removed by means of a small blister on the back of the neck, as close to the root of the hair as possible, and a similar portion in the hollow beneath, and on the inside of the knee, as the most convenient place: to the wound in the neck, a plate of silver, varying according to the age of the patient, from the size of a sixpence to that of a half crown, was applied—having affixed to its back part a handle or shank, and to its lower edge, and parallel with the shank, a small staple, to which the conducting wire was fastened. This wire descended the back till it reached a belt of chamois leather, buttoned round the waist—it then followed the course of the belt, to which it was attached, till it arrived opposite the groin on the side it was wished to be used; it then passed down the inside of the thigh, and was fastened to the zinc plate in the same manner as to the silver one. The apparatus so contrived was thus applied:—a small bit of sponge moistened in water, and corresponding in size to the aperture in the neck, was first placed directly upon it—over this a larger piece of sponge of the same size as the metallic plate, also wetted, was laid—and next to this the plate itself, which was secured in its situation by a strip of adhesive plaster passed through the shank on its back, another above, and another below it. If these be properly placed, and the wire which passes down the back be allowed sufficient room that it may not drag, the plate will not be moved from its position by any ordinary motion of the body. The zinc plate was fastened in the same manner—but in place of the second layer of sponge, a bit of muscle answering in size to the zinc plate was interposed: that is, a small bit of moistened sponge being first fitted to the aperture below the knee, the piece of muscle also wetted then followed, and on this the plate of zinc. The apparatus thus arranged will continue in gentle and uninterrupted action from twelve to twenty-four hours, according to circumstances. This last is the longest period that it can be allowed to go unremoved: the sores require cleaning and dressing, and the surface of the zinc becomes covered with a thick oxide, which must be removed to restore its freedom of action; this may be done by scraping or polishing: but it will be better if removed twice a day, both for the greater security of a permanent action, and for the additional comfort of the patient."—*Mansford on Epilepsy.*

25. *Treatment of Fistula in Ano by compression.* By M. Lisfranc.—A square pledget of soft linen is to be introduced into the rectum, and pushed up with the point of the finger above the inner orifice of the fistula, or the level of its blind termination, when it is not complete. With the tip of the finger slightly flexed, the linen should then be spread out, so as to form a kind of purse, with its bottom directed upwards, and its cavity completely filled with balls of soft lint, introduced by means of dressing forceps. A plug should thus be formed, having an expanded extremity like the head of a nail. The edges of the piece of linen should then be drawn downwards, so as to make the compression act against the sphincters, and the course of the fistula, in which situation it must be confined, by means of pledgets of lint laid upon the perineum, and an appropriate bandage applied over the other dressings. Care should be taken to leave the orifice of the fistula open, in order that the discharge of the matter may not be prevented. Where there is not much pain, the compress may be suffered to remain twenty-four hours, when it must be removed, to suffer the individual to go to stool, and be afterwards re-applied as before.—*Journal de Medicine et de Chirurgie Pratique Avril*, 1834.

26. *Atropine.*—MM. Geiger, Hesse and Mein have succeeded in extracting this alkaline substance from the Atropa Belladonna. They have obtained it separately from the same plant by two different processes, each, however, offering the same properties. It is white, and crystalizable, in transparent prisms, in silky shining groups. Water of the ordinary temperature only dissolves one-hundredth part. The aqueous solution renders turnsole paper, reddened by acid, blue; in the same state of solution it possesses the power of dilating the pupil of the eye, which state continues for some time; it also gives an abundant white precipitate on adding an aqueous infusion of gall nuts. Hydro-chlorate of gold precipitates it of a yellow citron color; it is insoluble in solution of platina, is very little altered by the addition of chloride, and appears to form with acid subsaline compounds.—*Lon. Med. and Surg. Journal, April*, 1834.

27. *Aconitine.*—The aconitine which has been discovered in the leaves of the *Aconitum Napellus* is not susceptible of crystalization. In the purest state it is grained, and in transparent colorless masses. The savor is first bitter, then acrid, the latter taste, however, being neither powerful or of long duration, very different from that of the plant, which often remains for more than twelve hours, and leaves the tongue benumbed. The acrid principle resides, entirely in the aconitine, and may be separated by several times combining this alkali with acids. One-fiftieth part of a grain dissolved in alcohol suffices to kill a sparrow in a few minutes, and one-tenth of a grain destroyed a little bird with the rapidity of lightning. It dilates the pupil of the eye, but its action is evanescent.—*Ib.*

28. *Sarsaparilline.*—M. Thubeuf considers this substance as the active principle of sarsaparilla, since it causes water to froth when shaken, and gives it the acrid and bitter taste which this vegetable imparts to its aqueous and alcoholic macerations. Seen by the aid of a microscope, it offers an assemblage of radiated crystals, of which the laminæ are convergent at their extremities, and has not the slightest action upon turnsole paper. In a state of purity, the sarsaparilline is white, without odor, and, in the dry state, with scarcely any savor. In cold water it is scarcely soluble, whilst it is readily dissolved in boiling, although, on cooling, a great part is precipitated. Alcohol, either cold or hot, dissolves it, but, on adding a little water to these solutions, it may be precipitated, and, on evaporation, will crystallize. Equal parts of æther and alcohol at an increased temperature readily dissolve it, whilst æther alone, even in the boiling state, completely fails in so doing.—*Ib.*

VARIETIES.

O curas hominum! O quantum
est in rebus inane!——

JEFFERSON MEDICAL COLLEGE.

"I know them, yea,
And what they weigh, even to the utmost scruple."
"*Much Ado about Nothing*, Act v. scene 1.

What *cracker* is this same which deafs our ears
With this abundance of superfluous breath?
King John, Act i. scene 1.

Mr. Editor,—

You have doubtless seen the "annual announcement" of lectures of Jefferson Medical College in Philadelphia, as well as the solemn animadversions that have been made on its statements, and mistatements, in certain of the newspapers. How these productions have impressed you I know not, but it does appear to me, that the objects of that ingenious paper have been misunderstood, and that it has been regarded in a more serious manner than it merits, or than the "Trustees and Professors" wished. It is not more than a week since I received the following communication on the subject from one of the most eminent Physicians in the Union,—one who, it will be observed, is anxious—over anxious I think in this case—to uphold the dignity of the Profession against all who "run a muck" at it. "I presume," says he, "you have seen the 'Jefferson Medical College Announcement' for next winter, and perhaps also a few strictures on it in an 'Extra Lexington Intelligencer.' Permit me, therefore, to ask you—Is it not proper, and even *necessary*, for honorable and fair-minded teachers of medicine to frown, in some public manner, on a production, so eminently calculated to bring their important profession into disrepute? For that such is the direct tendency of the 'Announcement,' as far as such a *charlatanical tirade* may avail, cannot be doubted. It is, moreover, as *untrue*, as it is *undignified*. Nor is this all. It is a bravado, insulting, in its manner, to all other Schools of Medicine. Do you tell me that such a noisy, boastful concern as the 'Jefferson Medical College' will ultimately die of its own emptiness, and venom? So does the rattle snake die, some say, of its own poison. But is that any good reason, why you should not stamp on it, when threatening to bite you? In truth, sir, forbearance may be carried too far, even toward an insignificant thing; and I do think that the cause of Medical Instruction calls for a stern and general rebuke to so *shameful* an outrage on its dignity and standing, as a business in which honorable men are engaged;"—and he adds in a postscript—"I do not ask you whether you disapprove of the 'Announcement.' I know you do. Can you not, therefore, by a few remarks in the newspapers, or in some other way,

make your reprobation of it publicly known, and thus aid in damning it? Such an unworthy, and in every way reprehensible effort ought not to pass unchastised. A few paragraphs, in a few papers, would teach the Jefferson Faculty a lesson they would not soon forget."

Now, really, either my estimable friend has mistaken the purport of this "fire, and smoke, and bounce," or else I have. Were the authors of the "Announcement" serious, I should think with him, and consider that no language was too strong to express my objections to the reproachful course, adopted by the "Trustees and Professors of Jefferson Medical College" for drawing students to their school. But as I said before, I do not regard the production in so solemn a light, but rather esteem it as a kind of serio-comic interlude, between the play and the entertainment, to prepare the audience for the harlequinade that is to succeed. The reasons that have led me to this deduction are as follows, and I think you will agree with me that they are cogent.

Imprimis.—I cannot believe, that any body of Professors could be found who could so far forget what is due to themselves and to the honorable Profession they are engaged in pursuing, and in teaching, as to boast of the elevation *they* have attained above all the schools of the Union *save one*, and, by implication, to desire to have it inferred, that they are equal if not superior to that one also. "*Two years ago*," say the authors of the Announcement, "they are aware that the sister Institution"—the University of Pennsylvania—"possessed advantages on the score of reputation, and that this naturally operated powerfully in inducing young gentlemen, immediately on their arrival in the city, unhesitatingly to matriculate as students in that Medical School. This extrinsic advantage, however, no longer exists. It is now conceded by every person conversant with the subject, that JEFFERSON MEDICAL COLLEGE presents advantages and facilities for the acquisition of a medical education, which are not to be surpassed!" [That is, as I read it, "NOT *to be surpassed*," namely, "at this time, in the existing condition of medical science and education,"—by no means, as some cynical gentlemen would have it,—"*not* TO BE *surpassed*,"—that is to say, "either now or hereafter."] "Were evidence of this required, the single fact before adverted to would be conclusive, viz: that a number of students, after attending Lectures for one session, in *what had formerly been considered as the first Medical School in the United States*, had been induced, after a comparison of its merits with those of JEFFERSON MEDICAL COLLEGE, to select the latter, in preference, for the completion of their medical studies." Now, sir, the very arrogance exhibited in this quotation, and the omission of the Medical Department of the University of Maryland, whose reputation as a School for the attainment of sound medical education is generally admitted to be inferior to none in the Union, lead me irresistibly to the inference I have deduced.

Item.—There is an old law maxim—"*Nemo allegans suam turpitudinem audiendus est*,"—by which is meant, that no one is to be permitted to stultify himself. This truth is so generally felt, that we cannot believe the Professors of Jefferson College would solemnly publish to the world their own sense of their inferiority. Two years ago,—the Trustees and Professors affirm,—they were confessedly inferior in reputation to the University of Pennsylvania, but not so now. What then has happened to produce this change? But one

thing obviously—the addition to their school of their Professor of Anatomy, whose zeal, and ability, I would be amongst the last to deny. To him, therefore, the other Professors voluntarily ascribe all honor and glory. This humble and humiliating conduct is so unlike that of mankind in general, that it necessarily corroborates my deduction.

Item.—The inference is strengthened by the stress laid, in the "Announcement," on the signal advantages, which have been found to accrue to the students of Jefferson college, from drinking tea with the Professors—significantly, and after the European fashion, termed *conversaziones*, but also, in more homely English, often called "*Tea and turn out parties.*" "Impressed with the importance of cultivating the intimacy of the students, the Professors instituted last session a series of medical *conversaziones*, which were occasionally held in the Hall of the Museum on Saturday evenings. Tea and coffee were served, and the hours from 8 to 11 o'clock spent in agreeable, and intimate intercourse by the students and Professors. The effect of this naturally was an intimacy and friendly feeling between the parties, which led to the happiest results, and such as will encourage the Professors to continue their medical *conversaziones* for the future."

Only imagine, sir, what a stimulus to study;—and then how unlike the Deipnosophists of old, quaffing their Chian, and Falernian instead of the infusion of a dried herb, sweetened with sugar. I fancy I see the *toast* of Jefferson college as it went round, pledged by every man in his *cups;* the Professors enveloped in feelings of innate and acquired dignity;—

> "While words of learned length, and thund'ring sound,
> Amaz'd the gazing *students* rang'd around.
> And still they gaz'd, and still the wonder grew
> That such small heads should carry all they knew."

We hope, that the catastrophe, depicted by the poet, is yet far distant.

> "But past is all their fame, the very spot,
> Where many a time they *guzzled,* is forgot."

Item.—If the apparent strain of ostentation and vain glory, which pervades the "Announcement," were real, the admission, that the "Trustees and Professors" of Jefferson Medical College have *yet to form* a Museum, would never have been permitted to creep in. "Fully aware," say they, "of the value of preparations in the communication of instruction, the creation of a great Museum in connection with their Institution has been an object never lost sight of by its Professors." With this view, they have engaged the services of a Curator from London, and "from the progress, which has been made, since the arrival of Mr. Cosgrave, they feel confident that the Museum of the College *will become* all that the friends of the Institution could desire." To aid in the formation of this Museum, the smallest contributions of pathological specimens, it is said, will be thankfully received, and, as a reward to all charitable and ambitious individuals, their names will be (what?) "recorded!"

Nor should we have expected the Trustees and Professors to object to "*wax casts,*" because they are showy. Such is the failing that its enemies ascribe to the "Announcement," with this difference only, as they ill-naturedly remark, that the former may be accurate in their representations, whilst the latter certainly is not: but this is a severity of judgment, which is by no means commendable.

It has also been suggested, that the objection to "filling their cases with showy specimens, such as "*wax casts*, &c. &c." is not exactly in keeping with a subsequent part of the paragraph, in which they assert, that the "Faculty, to render their collection still more rich in subjects of illustration, have ordered from Europe a large collection of *original drawings*, exhibiting on a large scale, anatomical, physiological and pathological demonstrations." "Why," say these testy gentlemen, "should the Trustees and Professors of Jefferson Medical College prefer showy plates to showy wax casts? Surely the latter are better adapted for conveying accurate instruction than the former."

Item, and *lastly*.—I maintain it to be impossible, that the authors of the "Announcement" could have meant any thing more than *facetenes*, as HALES terms it, when they inform the western students, that as the expenses of medical education, necessary for graduation, are only thirty-five dollars less in Jefferson Medical College than in the University of Transylvania, it is therefore as cheap for the western student to graduate in Philadelphia as in Lexington; in other words, that the sum of thirty-five dollars, (and a western physician, in the *Lexington* (Ky.) *Intelligencer* of the 2d of September, asserts the difference to be not more than ten dollars,) will be sufficient to pay the expenses of the journey from the west to Philadelphia *four times;* for the student, as the "western physician" remarks, must necessarily pass over the ground *four times* to attend two courses of lectures, or continue to reside in Philadelphia about eighteen months!! The *mileage*, scarcely sufficient to satisfy, we presume, a member of Congress, or a Professor of the Jefferson College, would, according to this estimate, amount in some cases to about one hundredth part of a cent per mile, or if we reckon the distance from one place to the other *twice* repeated, so as to exclude the journeys back, as is the mode of estimating mileage, to one fiftieth part of a cent per mile—the distance over which any western student would have to pass being, in every case, 2,500 miles, in some 3,000, and in others 3,500.

Such, Mr. Editor, are some of the reasons which induce me to consider, (although I am free to confess that no one, so far as I know, partakes of my opinion,) that the "Trustees and Professors" of Jefferson Medical College have meant nothing serious or offensive by the publication of their "Announcement," and that it has been intended merely as a harmless annual squib or "cracker," exploded so as to attract the attention of the public, and to divert them from the storm of politics, and from brooding over their pecuniary or domestic afflictions. Where, however, so many attempts to "raise the wind," have lately been made, and in this season of mania for balloons, and bubbles, they are apt to regard that as designing *gas*conade, which is more marked by insignificance and folly, and therefore meriting commiseration rather than anger.

DEFENSOR.

Baltimore, September 15th, 1834.

At a meeting of the Visitors of the University of Virginia, held in July last, Dr. Augustus L. Warner of this city was unanimously elected Professor of anatomy, physiology, and surgery, in that Institution. Dr. Warner has been for some time advantageously known in Baltimore, as teacher of anatomy and physiology, and from our personal knowledge of his abilities and acquirements we feel assured, that the visitors, and the friends of the Institution generally, will have every reason to be pleased with the appointment.

NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL SCIENCE.

VOL. I.] NOVEMBER, 1834. No. 2.

ARTICLE I. *Reports of Surgical Cases, with remarks by* N. R. SMITH, Professor of Surgery in the University of Maryland.

Morbid state of the Spermatic Cord simulating Hernia.—In June last I was requested to visit, in consultation with Drs. Warner and O'Donovan, Mr. ———, a young man aged about 20, living in Pennsylvania avenue. I was informed by the attending gentlemen that for three days previous, he had been laboring under severe symptoms of enteritis, that had in no degree yielded to the active means which they had employed. Complete iliac passion had indeed taken place, the alvine evacuations having entirely ceased, and stercoraceous vomiting occurring at frequent intervals. The pulse was small and frequent; the extremities cold; the countenance hippocratic; the belly tumid, tense, and tender to the touch. The medical gentlemen in attendance informed me that within the last six hours they had discovered a swelling in the left inguinal region, apparently affecting the spermatic cord. All the symptoms of strangulated hernia being present, it of course immediately occurred to them that a concealed hernia had previously existed, and that it had now become in a degree manifest by the increased tumefaction of the parts concerned. They regarded the case, however, as one of obscure and doubtful character, and such indeed I found it.

The scrotum was much enlarged, but this was manifestly an œdematous swelling. Extending from the internal ring along

the course of the cord was an elongated swelling, of a firm, unyielding feel, and evidently issuing from the ring. It was sufficiently obvious that no intestine could be involved in the tumor, as the characteristic elasticity was entirely wanting. It was not so easy to determine, however, the part which the omentum bore in the case. We could not, it is true, distinguish the cord from the tumor, and we were perfectly aware that, after all, the enlargement might prove to be nothing more than one of the cords itself; but supposing a semicongenital sac to exist, it was manifest that a portion of omentum might have been thrust within the investing membranes of the cord, and become strangulated at the ring, or neck of the small sack. Certainly the existence of such a tumor, together with all the symptoms of strangulated hernia, justified such a conclusion.

The patient was now so exceedingly low as to render an operation, under any circumstances, extremely doubtful in regard to its result. But as death appeared inevitable without our interference, we determined on the remedium anceps. We resolved to cut upon the cord, and at least to reveal the true character of the local disease.

In the presence of the attending gentlemen, I executed the incision, and quickly exposed the cord. It immediately became apparent that the tumor resulted from an enlargement of the cord, caused by the infiltration of serum into the tissues which enveloped its vessels. It was manifest that the fluid had issued from the cavity of the abdomen, and percolated along the cord, even to the scrotum, giving rise to the œdema of that part. The envelopes of the cord not readily yielding to the distention, the tumor of this part became hard and cylindrical. As there evidently existed in this case a high degree of peritoneal inflammation, I inferred that effusion had taken place into the cells of the fascia propria exterior to the peritoneum. This fascia, it is hardly necessary to say, is continued along the cord, and becomes one of the proper coverings of that fasciculus of vessels and nerves, and therefore might easily convey the effused fluid from the cavity of the abdomen.

As soon as the condition of the cord was ascertained, I closed the wound, the patient having suffered but in a very slight degree from the incision. The case terminated fatally on the following night.

A post-mortem examination of the case was made by my friend, Dr. Warner, and the ordinary evidences of high enteric and peritoneal inflammation discovered.

I am at this moment in attendance upon another case of peritoneal inflammation, occurring in a servant boy of my friend, Dr. Cockey. The disease was ushered in by pain in the right lumbar and iliac regions, accompanied with soft puffy swelling above and within the spine of the ilium. This swelling early in the attack was elongated in the course of the cord; and the cord was the seat of considerable morbid sensibility. On one occasion the patient complained of agonizing pain in the testicle of the same side. The condition of the cord, and the presence of the swelling immediately caused attention to be directed to the possibility of the existence of obscure ventral hernia; but a careful examination, and the history of the early progress of the case showed clearly enough that nothing of the kind could exist.

Excision of the Astragalus.—There are two conditions of the astragalus which may require the removal of that bone; the one a dislocation with or without fracture, and the second a necrosis of the same bone. A case of necrosis of the astragalus requiring the operation occurred to me in the Baltimore Infirmary, in 1832. The patient, (from one of the lower counties of Maryland,) was a man of about thirty-five years. He had been affected with disease of the ankle for two or three years, occasional swellings of the joint taking place, resulting in suppuration, the discharge of ill-conditioned and fetid pus, and leaving fistulous orifices. When the patient first entered the Infirmary, he came under the care of my friend Professor Hall, by whose judicious prescriptions his general health had been much improved, and the affected part brought into a more favorable condition. On the expiration of Dr. Hall's term he became my patient, and I then found the ankle in the following condition. There existed a fistulous orifice on each side of the ankle, the one beneath the inner malleolus—the other beneath the opposite. There also existed another on the anterior part of the joint. A sanious and fetid discharge issued from these canals. The patient was totally incapable of enduring motion in the joint, or of sustaining the least weight upon it. He informed me that this state of things had existed for many months.

On probing the joint upon each side of the ankle, the instru-

ment immediately encountered a rough necrosed mass of bone, no part appearing to be invested with membrane. The carious bone could be moved with some degree of crepitation when pressed upon with the steel director, rendering it manifest that the separation of the sequestrum from the living parts had taken place.

I now determined on the removal of the astragalus, and with the advice and aid of my colleague, Professor Geddings, commenced the operation by dilating with the knife and director the inner fistulous orifice, till I was enabled to introduce my finger. The same was also done on the inner side of the joint. I now more carefully explored the dead bone, and discovered that the astragalus, by the progress of caries, was resolved into two or more fragments, and that the whole was much decayed and brittle. Ascertaining that there was a portion on the inner side of the joint which appeared more insulated and moveable than the rest, I introduced a strong pair of polypus forceps, and seizing it, effected its removal without much difficulty. I then seized upon another portion of the carious mass, and endeavouring to displace it, broke off another considerable part, and removed it. After dilating the incision upon the inner ankle, I was now enabled to disengage and remove the remainder of the astragalus. This was accomplished without dividing any of the ligaments of the joint, (except a portion of the internal lateral,) they having been, as well as all other soft parts, detached from the bone by the ulcerative process. When the bone had been thus removed, I found that the finger could be passed entirely through the joint from side to side.

I now placed the limb upon a firm pillow, on its outer side, having applied light and simple dressings. No splints were necessary to give support to the limb, the foot showing no disposition to become distorted to either side. This was probably in a degree owing to the rigidity and firmness of the soft parts around the ankle. No unpleasant consequences resulted. The constitution suffered but little—suppuration took place in the cavity—the soft parts around the joint contracted, and adapted themselves. The case now went on favorably, and after the lapse of a few days, the patient left the house rapidly convalescent. He has since visited the city, and it appears that the ankle has been restored to a state of soundness except as regards the loss of parts caused by the disease. The limb is a little

shorter than the other, and the motions of the joint are in a degree confined; hence there is a considerable halt in his gait; he stands firmly on the member, however, and suffers no pain in walking.

Clinical Remarks on the use of the Bandage.—There is, perhaps, no more valuable agent employed in surgery than the bandage; but like every other efficient means, it is in a corresponding degree subject to abuse. The instances in which I have witnessed the injurious effects of the bandage have been very numerous; so much so, indeed, that I have often been disposed to believe that the evils caused by its improper use, more than counterbalance the good resulting from its judicious employment. It is not so often that the bandage is a remedy ill adapted to the case in which it may be employed, as that it is applied unskilfully. A proper application of the bandage, indeed, is rarely made but by a practised hand, and this most practitioners have no adequate opportunities to acquire. It is to be regretted, therefore, that the bandage, well or ill applied, should be so universally considered a part of the prescriptive apparatus of surgery never to be omitted. The bandage in the days of nostrums and specifics, was often employed upon principles as erroneous as were the ridiculous vulneraries which it bound to the part. In treating a fracture, for instance, it was used for the purpose of preventing the afflux of humors to the part, and to confine and give form to the cellus which was being deposited. Now that the numerous and frivolous reasons given by the older surgeons for the employment of the bandage in all cases no longer exist, custom still insists upon its use.

It was formerly no small part of a pupil's education to learn the forms, names and application of the numerous modifications of the bandage in use. Every part of the body had its appropriate bandage, and each bandage had its appropriate name. It is true that all this served some of the purposes of the surgeon well enough, when

> "Words of learned length and thundering sound
> Amazed the gazing rustics ranged around."

The practice of the Baltimore Infirmary have given me frequent opportunities to notice the mischiefs often occasioned by the abuse of the bandage. Surgical patients are sometimes transported to that establishment from considerable distances, their injuries having been dressed at the moment of their occur-

rence, either in the domestic way, or by some practitioner who is but little accustomed to the application of bandages. As a considerable time often elapses before they are located in the house, the apparatus is not soon removed or re-applied, and we often find the member suffering dreadfully from its tight and unequal constriction. I have seen tapes and narrow bands often completely buried in the swollen and choked limb that has been dressed on account of fracture. In some instances this mischief has so added to the necessary effects of the injury, that it has caused the loss of the member, or even of life.

The general objects accomplished by the use of the bandage are five; 1st, the suppression of hemorrhage; 2d, the confinement of dressings; 3d, the prevention of swelling; 4th, support of parts, and 5th, the expulsion of fluids.

1st. In the suppression of hemorrhage the bandage is by no means to be relied upon with confidence, except under peculiar circumstances. In an article recently published in the Balmore Medical and Surgical Journal, I have endeavored to prove that it is often, indeed, the cause of secondary hemorrhage when applied with irritating tightness and unequal pressure. The timid practitioner is always impatient to hide the wound which he treats in voluminous dressings, and is usually exceedingly reluctant to remove them. But the bandage should never be applied to a serious wound till more effectual means of suppressing hemorrhage have been employed, if any considerable vessel has suffered injury. Should hemorrhage result after the application of the bandage, it is often for a time concealed, and often produces serious mischief by being confined in the wound, and diffused in the yielding tissues. When there has been a considerable loss of blood suddenly, and fainting has occurred, we never apply our permanent dressings until some degree of reaction has taken place, or often there will occur a secondary bleeding which the bandage will not command. When, however, a small artery can be compressed upon a bone; or where blood oozes from many small vessels; or where the hemorrhage is venous, the bandage may be at once resorted to.

2d. The dressings now employed by judicious surgeons in the treatment of wounds, ulcers, &c. are exceedingly simple, and very rarely is any complicated harness of bandages and straps necessary for their confinement. Where no other end, indeed, is to be accomplished by the use of the bandage, I am in

the practice of frequently supporting the lint or compress which covers a wound or ulcer with long adhesive strips. This is frequently preferable when the injury exists on the walls of the thorax or abdomen, as a bandage which encircles the body often gives much annoyance to the patient.

3d. The prevention of swelling is certainly one of the most important ends accomplished by the use of the bandage. Nor is it the mere tumor of parts which is prevented; vessels unduly engorged with blood, even although there may not exist a high degree of inflammation, never perform their recuperative office well, as is manifest from the difficulty with which ulcers heal on the lower extremities. But the bandage is not the only means, or indeed always the best, which we possess. When the diseased part is so situated that we can give it an elevated position, the use of the bandage for this particular purpose is superseded. Thus, in the treatment of fracture of the leg, if the limb can be so elevated as to be slightly above the level of the trunk, it is not likely to become the seat of passive engorgement.

4th. It has always appeared to me that far too much importance has been ascribed to the bandage in regard to the mechanical support which it is supposed to give to fractured members. In the treatment of fractures of the clavicle—certain fractures of the scapula and humerus, it is manifest that they may be rendered effectual in this respect by the manner in which they command the position of the superior extremity; but the support which they give when directly applied over the region of a fractured bone is obviously very slight. Indeed, if they were applied so tightly as to accomplish any thing in this respect, their constriction would be intolerable. I would be understood to speak now only of the bandage which is so frequently applied directly to the member before the splints are adjusted. Those bandages which bind the limb to the splints are, of course, often indispensable; but then the splint is the essential part of the apparatus of support. But the most perfect apparatus for a fractured limb is such as gives easy and equal support to the member, without the necessity of being tightly lashed to it by means of bandages or tapes.

Serious mischief often results in cases of fracture, from the direct application of the bandage to a naked limb. If it be applied soon after the occurrence of the injury, the limb will necessarily swell, and that chiefly at the place of fracture; con-

sequently the bandage is necessarily made to constrict the limb unequally, and then it becomes expedient to relax the dressings. This cannot be done without disturbing the whole apparatus of support. When, however, the bandage is applied exterior to the splint or apparatus of support, there is but little danger that any portion of the limb will become strangulated by its unequal pressure, because one side of the limb is protected from the direct pressure of the bandage by the splint. It is generally easy also to re-adjust the bandage without the necessity of removing the support.

5th. The expellant bandage is one which is undoubtedly often employed with beneficial effects, but this too I have often seen misapplied and abused. When a bandage is so applied as to express a fluid from any recess of an abscess, it must necessarily, in order to accomplish the object, be applied with a greater degree of tightness over that particular part than elsewhere, and hence arises an impediment to the circulation. This pressure also on the walls of the sinus, although it prevents the accumulation of matter in the part, often creates such a degree of irritation, as to impede the healing process. I once had occasion to treat an abscess, resulting from a wound above the knee, and burrowing beneath the exterior muscles. For a long time, while I used other means, I persisted in the employment of the roller, so applied as snugly to compress the walls of the cavity, and keep them as closely in apposition as possible. So long as I continued this mode of dressing, but little improvement took place. I then threw aside the bandage altogether, the parts having become wasted and flabby by its pressure. A little swelling and uneasiness in the part at first resulted, but in a day or two a more healthy excitement appeared to take place, and adhesion of the walls of the abscess was effected.

The above desultory remarks on the bandage are by no means made for the purpose of discouraging the use of that valuable auxiliary, but rather to deprecate that officious interference with the willing efforts of nature, to which surgeons seem perpetually prone.

Extirpation of the Tonsils.—The extirpation of enlarged tonsils is by no means an operation of very formidable character, but it is one which is often necessary, and which is generally accomplished with some difficulty. Hence the multitude and variety of instruments which have been devised for effecting it.

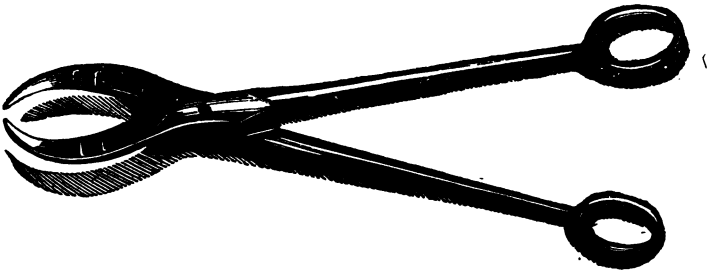
That no instrument for this purpose has yet been employed that is free from important imperfections is obvious, from the fact, that almost every medical journal furnishes some new device for this purpose, intended to supply deficiencies.

The ligature, for the removal of enlarged tonsils, has been, by prudent surgeons, almost entirely abandoned. The bugbear, hemorrhage, which has frightened so many into the continued use of it, has lost its terrors. The fact is, that it is not necessary ever to cut away the entire base of the tonsil; if it be only cut through in the centre, so that one half is removed, it will generally be found sufficient; for, in the first place, suppuration will waste a portion of the remainder, and then the cicatrix subsequently forming will repress it. I rarely attempt to cut away more than two-thirds of the tumor, and this portion of it is not very vascular, nor has it much sensibility. Those appalling instances of hemorrhage of which we read, have no doubt arisen from the fact that the incision has been carried too deeply into the base of the tumor, wounding vessels which do not wholly pertain to the tonsil. This more frequently happens when the tumor is seized with forceps, and dragged out from its recess at the moment that it is excised. The ligature is a tedious, painful, and often inefficacious remedy. I have wholly abandoned its use for some years.

Dr. Physick's instrument for the extirpation of the tonsils is certainly ingenious, and will often be found applicable; but it is clumsy, complicated, expensive, and by no means easy of application. I have generally been foiled in attempting its use. The instrument recently devised by Dr. Rodgers, of New York, is perhaps equally objectionable. The knife is not easily applied, and requires to be aided by forceps. The common scissors do not seize the tumor with such a hold as to complete its division at one stroke, as is desirable. Whatever instrument is employed, the excised portion of the tonsil is almost always left in the throat, and it becomes necessary to remove it with the forceps, or the patient swallows it.

A few days since I undertook the extirpation of very much enlarged tonsils in the throat of a small child. I had at hand almost every variety of instrument used for this purpose, as I anticipated considerable difficulty. I tried nearly all in succession, without being able to effect my object, but finally succeeded clumsily with a pair of large probe-pointed scissors, first having seized the tonsil with slender, toothed forceps. While the dif-

ficulties of the case were fresh in my mind, I resolved to provide myself with something which should obviate similar embarrassment. I had found that the scissors which I used would have answered extremely well had they had a regular lateral curve, and had they been provided with any appendage to prevent the tonsil from slipping from the grasp of the blades in the direction of their points. Something also, it occurred to me, might be appended, that should seize the severed tonsil at the moment of its division.



With these objects in view, I put into the hands of the instrument maker a model of the instrument here represented. It will be seen that it is a pair of scissors, the blades of which have a lateral curve, and each a hawk-bill curve toward the other, so that when the blades are shut, the points pass by each other to some extent. When any thing of the size of a diseased tonsil is seized by these scissors, the moment the middle part of the blades begins to press it, the points meet and begin to pass each other, so that the tumor cannot possibly escape. To the side of each blade there are attached two small steel points, which are bent toward the edges of the blades, so that when the scissors are completely closed, the tonsil exterior to the place of the incision will be seized and held by the points, and brought away from the fauces when the instrument is withdrawn. The blades should be about an inch and three-fourths in length from hinge to point.

In using this instrument, forceps for seizing the tonsil are unnecessary, nor need we employ any thing for the purpose of keeping the mouth open, as when the scissors are introduced, the mouth cannot be closed. The lateral curvature of the blades enables us to press them as deeply as we please into the recess which the tonsil is lodged.

These scissors will be found equally useful for the extirpation of the uvula, and for the removal of hemorrhoids.

ART. II. *Contributions to the Pathology of the Nervous System.* By the EDITOR.

CASE I. *Apoplexy—recovery—Death by a second attack five years afterwards.* An aged black woman, about five years previous to her death, was attacked with hemiplegia of the right side, from which she partially recovered in the course of some months. Considerable impairment of the powers of sensation and motion nevertheless remained. She continued to drag her right foot when she walked; her powers of speech were considerably impaired; and when spoken to, her countenance always pourtrayed the vacant stare and expression of idiotcy. No farther particulars of her case could be obtained.

On the 16th of July, 1827, she appeared as well as usual, and had in the morning carried one or more buckets of water on her head. In the course of the day, however, without any symptoms premonitory of such an attack, she fell down in a fit of apoplexy, and immediately expired. I was requested by my late friend, Dr. Isaac Wilson, to examine the body, which was done about 6 o'clock of the same evening, in presence of him, and my friend, Dr. E. Horlbeck. The body was still warm, but presented nothing of interest externally. The cranium was preternaturally thickened, and at some points so much so, as to be with difficulty broken through with the hatchet. The dura mater adhered intimately with the bone, and when separated, its external surface presented a number of small whitish-colored points, some of them as large as a barley corn, which seemed to consist of organized coagulable lymph, very much consolidated. Posteriorly, this membrane had its natural thickness and consistence; but that portion which covers the anterior lobes of the brain, was considerably attenuated. The arachnoid was studded over with the same species of organized adventitious points, which were observed on the external surface of the dura mater. The posterior lobes of the cerebrum were of their natural volume and configuration, but the anterior were so much atrophied, as not to present more than one half their natural size. On insinuating my finger between the orbiter plates of the frontal bone and the corresponding portion of the organ, the inferior face of the left anterior lobe was slightly lacerated, and a coagulum of blood, as large as a pullet's egg, escaped. On

cutting into the left hemisphere, a large cavity was discovered extending through the whole central point of the hemisphere, and communicating with the corresponding ventricle, which contained several small clots, and a considerable quantity of fluid blood. The walls of the cavity were spongy and flocculent throughout a great part of their extent, and these flocculi were highly vascular. About the centre of the middle lobe was a large cyst, formed by a strong membrane, smooth and uniform upon its internal surface, and which had probably formed around the extravasation which took place at the period of the attack of hemiplegia. The cyst was large enough to contain a common sized hen's egg, and was of a yellowish color. The portion of the brain which corresponded to its lower surface was of a dark brown color, and was of an uneven, indurated, fibrous character. The part thus affected was about an inch in breadth, by two or two and a half inches in length. Situated deeply in one of the infractuosities of the middle lobe of the brain, there was a second cyst of similar dimensions, but possessing all the characters of the one described. The corpus callosum was entirely destroyed on the left side, and the corpus striatum presented a highly vascular flocculent surface. The disorganization extended for some distance into the left crus cerebri. The larger cyst reposed in contact with the middle cerebral artery, which had been ruptured in the original attack, and which now presented a few small points of ossification. The substance of the right hemisphere was considerably indurated, as were also the pons varolii, medulla oblongata, and cerebellum. The floor of the right ventricle, to the extent of one inch and a half, had its lining membrane destroyed, and the adjacent structure seemed to be in a state of ulceration.

This case is interesting, as shewing satisfactorily the steps adopted by nature, in repairing the injury inflicted upon the brain by an extravasation of blood within its substance, and conducting the case to a favorable issue. Reflecting upon the post mortem appearances, and the previous history of the individual, it is manifest, that at the time at which she became affected with hemiplegia, an extravasation of blood took place in the left hemisphere of the cerebrum. The injury arising from this cause had, however, been in a great measure repaired, or at least counteracted, by the development of a cyst surrounding the coagulum, the effect of which was, to isolate it from that

organ, and thus obviate the serious consequences which otherwise would have ensued. The ulcerative process, however, which was excited by the original disease, continued gradually to inflict its ravages upon the adjacent structures, up to the period of the last fatal attack, when in consequence of a considerable artery being opened, either by ulceration, or a rupture of its parieties, they having in the mean time become exceedingly fragile, a sudden extravasation took place in the excavation, and death was the consequence.

Nor is the case without interest in a psychological point of view. The co-existence of extreme atrophy of the anterior lobes of the brain, which according to the tenets of phrenology, are the seat of the intellectual faculties, and the idiotic character of the individual, speak forcibly in favor of their existence in the relation of cause and effect, and furnish an additional fact, or at least argument, in favor of the correctness of the principles of that doctrine.

Case II. *Apoplexy—death in a few hours after the attack.*—Captain D., aged about 45 or 50, had been for some time affected with ascites, for which he had been successfully treated by my friends, Doctors Samuel and Wm. N. Baker. After partaking of a hearty breakfast, he was attacked suddenly, on board of his vessel, with a fit of apoplexy, in which he was seen by Dr. Wm. N. Baker, who bled him freely, and had him conveyed to the Baltimore Infirmary, where he united with me in the treatment of the case. At the period of his admission, he was in a state of profound insensibility; his respiration laborious and sterterous; his pupils contracted; the skin somewhat hot, and of nearly an equable temperature throughout; his pulse somewhat full and hard, and his tongue drawn to the left side. In this condition we deemed it advisable to abstract more blood, and the temporal artery was accordingly opened in front of the ear, and while the blood was flowing from it, the vein in the arm was again opened and allowed to bleed. With a view of assisting these means, and creating revulsion, ice was applied to the head, and sinapisms to the feet and legs. A stimulating cathartic enema was thrown into the bowels, but as it was immediately returned without effect; it was repeated with no better success by means of O'Bierns' rectum tube, which was passed up to a sufficient extent to ensure the projection of the enema into the sigmoid flexure of the colon. As it was suggested that

the stomach was probably still distended with the ingesta which had been taken in the morning, and as the individual was incapable of swallowing, we determined to convey a strong solution of sulphate of zinc into the stomach, by means of the stomach tube, passed down the œsophagus, with a common syringe attached. No effect following, a quantity of a saturated solution of common salt was afterwards thrown into the stomach by the same process. But that organ could not be made to respond.

All the means resorted to for the relief of the patient proving ineffectual, he expired a few hours after his admission.

On proceeding to the examination of the body, we first directed our attention to the head. When the cranium was opened, the membranes were found considerably injected, and a thin stratum of coagulated blood was found reposing upon the surface of the left hemisphere, immediately beneath its arachnoid covering. The lateral ventricles contained a large quantity of fluid blood mingled with serum. In the plexus choroides of both sides, there were a number of small transparent cysts, some of them as large as a pea. The fourth ventricle was also filled by a fluid of the same character as that which occupied the lateral ventricles—and along the right side of the medulla oblongata, entangled in the radicles of the hypoglossal, pneumogastric, and facial nerves, there was a considerable extravasation of dark coagulated blood. The brain in other respects, presented nothing remarkable, except that its vessels were somewhat more injected than natural.

On opening the abdomen, which was somewhat prominent, the cause of the dropsy under which the patient had previously labored, was found to have been a diseased state of the liver. This organ was enlarged to nearly twice its natural dimensions, and was in the condition to which the term *sclerosis* or *scleroma* has been applied. The enlargement and induration was owing in part to hypertrophy of its granules, but chiefly to a similar condition of their interstitial cellular tissue.

In addition to other features of interest presented by this case, not the least is that which has reference to the situation of the extravasation upon the radicles of the nerves of the tongue, lungs, and the stomach. Hence we find, that the tongue was partially paralyzed and drawn to the left side, in consequence of the injury sustained by the nerve which controls the antagonist muscles;—that the respiration was embarrassed and sterto-

rous from a similar implication of the radicles of the pneumogastric nerve; and finally, that the contractions of the stomach could not be roused, in consequence of the influence of that nerve having been suspended. The extravasation upon the surface of the brain, as well as that within the ventricles, must likewise have contributed much to the development of the symptoms presented by the patient, but their influence cannot be so directly traced, or so accurately estimated.

Case III. *Apoplexy—sudden death.—Extravasation upon the whole surface of the brain.*—I was requested by my friend, Dr. Lining, to examine the body of his man servant, who had died suddenly and unexpectedly. His habits had been intemperate, but he had enjoyed good health. On the day preceding his death, he had complained of slight indisposition, for which a cathartic was administered. In a few hours he was found dead.

On opening the cranium, and slitting up the dura mater, the whole of the external surface of the brain was found completely incased in a solid coagulum of blood of considerable thickness, the convolutions being only apparent through it at their most elevated points. The extravasation was most abundant at the base of the organ, where some of the blood was still in a fluid condition. The substance of the brain was healthy, and no other lesion of importance was discovered.

In this case, the extravasation seems to have taken place in consequence of an intense hemorrhagic action of the vessels of the pia mater, as most of the blood was situated beneath the arachnoid membrane, and in the infractuosities of the convolutions. No extravasation whatever existed, either within the ventricles or the substance of the organ. Nor could we by the most careful examination, discover a rupture of any of the larger vessels which distribute blood to the brain. Indeed, as the individual was young, and in the prime of life, the arteries still retained their natural elasticity, and had not yet acquired that fragility of tissue, which results from a slow transformation and degeneration of their tunics, and which so often lays the foundation for apoplexy in the more aged. As he had been laboring under a feverish disposition, which may have predisposed the encephalic organs more or less to take on disease, it is probable, from his habits of intemperance, that the hemorrhagic action, and his final death, may have been induced by immoderate alcoholic potations, taken while his system was in a state of preternatural excitement.

Case IV. *Apoplexy from excessive repletion of the stomach; sudden death—large extravasation in the vicinity of the fissure of sylvius.*—A colored woman, aged about 50, somewhat corpulent, and the mother of several children, after a hearty meal of animal food, peas and rice, tumbled down in a state of insensibility, and immediately expired. I was requested by a medical friend, who had been called to see the case, to make a post mortem examination. As soon as the cranium was opened, a considerable collection of blood was discovered about the base of the brain, much of which was still in a fluid condition. When the organ was removed from its cavity, a large coagulum was found occupying the fissure of sylvius, and extending for some distance into the corpus striatum. There was likewise considerable extravasation within the corresponding lateral ventricle. The arteries of the brain were rigid, much dilated, and studded over with numerous points of ossification. The extravasation had taken place in consequence of a rupture of their tunics.

We next proceeded to examine the stomach; and here we had fully revealed the source of the mischief inflicted upon the brain. This organ was impacted with peas, rice, homminy, and other articles of the individual's repast, to a degree to which it would scarcely be possible to believe could be borne without extreme suffering, and an extensive embarrassment of the functions of the whole of the associated organs. Its condition was such as to encroach upon the intestines, compress the aorta, and the vessels given off by it in the epigastric region, press upon the plexus of nerves behind the stomach, and finally force up the diaphragm upon the lungs, so as to interrupt their play, and thus embarrass the function of respiration, thereby interrupting the passage of the blood through them, and consequently impeding its return from the head. Being thus confined on the one hand to the vessels of the brain, by these causes, and driven upon it, on the other, by the pressure sustained by the aorta, which prevented the distribution of the usual quantity of blood to the lower part of the body, it is not to be wondered, when the fragile state of the tunics of the cerebral arteries is considered, that they should have been unable to sustain the onus suddenly thrown upon them, and that they gave way under its influence.

Case V. *General Dropsy; cure—subsequent death from Nervous Apoplexy.*—John Gilbert, (colored man,) seaman, aged 50, was admitted into the Baltimore Infirmary, August 20, 1834. According to his own account, he had been attacked with his disease two months ago, at Rio Janeiro, where he remained in the hospital for some time without relief. He is unable to assign any cause for his dropsical condition, but he is reputed to be a hard drinker. His abdomen is enormously enlarged; his legs and arms much swollen, and remarkably firm and unyielding to the touch;—pulse small; tongue nearly natural; breathing short and very much oppressed. ℞ Supertart. Potassæ ℈ ij. Pulv. Jalap. ℈ j.

21st. The medicine has operated copiously, and he expresses himself very much relieved.

℞ Supertart. Potassæ ʒ iss.
Sulph. Potass. ʒ ss.
Pulv. Scillæ ʒ ij.
Tart. Antim. gr. ij.*

A tea spoonful to be taken three times a day—to drink a decoction of the Polygonum Punctatum, E. ad libitum.

℞ Massa Pil. Hydrarg. gr. iv. night and morning.

This course was continued until the 31st of August, the powders being intermitted every third day. During this period, the cathartic and diuretic effects of the remedies were very strongly displayed, and rapidly reduced the swelling of the body. As his mouth was now a little sore, the blue pill was omitted, and not a vestige of the dropsical condition remaining, it was not deemed necessary to continue the other remedies. With the view, therefore, of imparting strength, and overcoming any chronic visceral affection which might exist, he was directed Tinct. Muriat. Ferri gtt. x. three times a day, and to use the following ointment upon the abdomen, in form of frictions: ℞ Iodini ʒ ss. Hydroid. Potass. ʒ i. Unguent. Merc. fort. ʒ i. m. ft. Unguent.

From this time forward he continued perfectly free from his dropsy, and although his convalescence was slow, nothing indicated a recurrence of the disease, or excited any apprehension that he would not gradually regain his health. After continuing to improve for about three weeks longer, he was suddenly attacked, without any manifest cause, with a violent determina-

* Eberle's Practice of Medicine, vol. 2, p. 449.

tion to the head, amounting almost to complete apoplexy—laborious respiration, which afterwards became stertorous, great embarrassment of the heart and general circulation, and impaired sensibility. These symptoms continuing to increase, his insensibility became complete, and his respiration and circulation more disturbed, and he finally died of all the symptoms of the apoplectic state.

His body was carefully examined, as well with the object of ascertaining, if possible, what had been the cause of the dropsy, as determining that which occasioned his sudden and unexpected death.

When the cranium was opened, no extravasation of blood was found within, and the only evidence of disease which existed, either in the brain or its membranes, was slight injection of the minute vessels, and some serous effusion within the arachnoid membrane.

The thorax was next examined with great care, as a suspicion had been entertained of some organic lesion of the heart. The only pathological states of that organ, however, that could be discovered, were, some hypertrophy of the left ventricle; a slight thickening of the semilunar valves of the aorta, and the development of a small nodule of ossification upon one of the limbs of the mitral valve—all too inconsiderable to have occasioned much embarrassment of function. The lungs were healthy, as were likewise their serous coverings.

On opening the abdomen, the liver and spleen, contrary to expectation, were found almost entirely healthy. The peritoneum exhibited no evidences of disease, and no water remained either within this cavity or the thorax. The mucous membrane presented some evidences of chronic villous inflammation, and that of the small intestines, particularly the ileum, furnished some appearances of chronic inflammation rendered acute, and was occupied by a few ulcers of limited extent.—(*Reported by Mr. S. G. Baker.*)

These were all the marks of disease that could be discovered by a careful autopsic examination. It must be confessed, that no one of them, or even the whole taken collectively, can be scarcely considered sufficient to account either for the dropsy, or the sudden death of the individual. To what occasion then should the apoplectic symptoms be referred? Any opinion offered upon this point must of course be conjectural, in the absence of posi-

tive evidence. Yet, if we bear in mind what takes place in many nervous diseases—in epilepsy, for example, hysteria, tetanus, &c. in which the symptoms denote a strong affection of the nervous centres, yet in which, dissection often furnishes no indications of disease in those organs, we may infer with much plausibility, that there was, during the life of the patient, a violent determination of blood to the brain, occasioned no doubt, by a state of active erethism of that organ, but that as soon as this latter condition was rendered extinct by death, there being no longer any cause to invite the fluids to that point, the vessels emptied themselves, in virtue of their elasticity, so as to leave but few traces of disease behind. The condition may, indeed, be regarded as constituting a true state of *nervous apoplexy*, and the case only differing from an ordinary one of that disease, in the absence of the extravasation of blood, which constitutes one of its most striking concomitants.

Case VI. *Fracture of the squamous portion of the temporal bone; injury of the corresponding portion of the brain. Tetanus and death.*—On the 22nd of August, 1826, I was requested by the late professor Ramsay, to examine the body of an individual, who died of tetanus supervening upon a fracture of the cranium, complicated with injury of the corresponding portion of the brain.

The integuments in front of the ear, and about half an inch above the zygoma, presented a laceration of a tripod shape, which was in a state of suppuration. In the squamous portion of the temporal bone, there was a round opening of half an inch in diameter, from which a small fissure extended towards the base of the skull. The dura mater also presented a small irregular opening, corresponding to that of the bone. A small quantity of serosity had collected under this membrane, and the vessels of the pia mater were considerably injected. On a level with the opening of the dura mater, and communicating freely with it, was a large abscess, which occupied the inferior lateral part of the middle lobe of the brain, and implicated a large portion of the corpus striatum, but did not communicate with the lateral ventricles. The orifice of the abscess, was somewhat ragged, and more contracted than its cavity. The cavity itself was large enough to contain two ounces of fluid, but it was merely occupied by the disorganized pulp of the brain. The lateral ventricles contained about an ounce and a half of bloody

serum, and the plexus choroides was highly injected. The left hemisphere was healthy.

In the thorax, some old adhesions were discovered, and the arch of the aorta was considerably dilated.

The liver was enlarged, and its vessels congested. The mucous membrane of the stomach presented numerous patches of a bright red color, having in some places the distended capillaries radiating towards them, and in others confounded in a spot of a bright red color, more or less diffused. The same appearances existed in the mucous membrane of the duodenum, and the other small intestines, but were less conspicuous in the jejunum and ileum. The large intestines also exhibited a few points of inflammation.

This case is particularly interesting, as it presents an example of an extensive lesion of an important organ, to which was superadded one of the most formidable diseases to which the system is liable. But it involves questions which are difficult of solution. In the first place, it is important to decide whether the tetanus was a consequence of the injury sustained by the brain, or whether it owed its origin to the laceration of the integuments of the cranium. This we have no means of doing. In the second place, supposing the injury of the brain to have been the source of the subsequent mischief, did it produce this effect by propagating its influence directly to the voluntary muscles? or mediately, by first radiating irritation to some other portion of the nervous centres, by which it was transmitted to the muscular system. If the results of vivisections are to be relied upon, the latter seems to be the most rational explanation. It has been stated, that the seat of the injury was the central part of middle lobe of the brain; that it implicated the corpus striatum, but did not extend to the lateral ventricle. These are parts which, if experiments upon inferior animals can be considered valid, exercise no influence over voluntary motion, but are exclusively subservient to other offices. This fact was in part known to Haller and Zinn, who ascertained by experiment that the superior parts of the brain exercise no control over muscular motion;—the same fact was established by Lorry, as regards the corpus callosum; and the more recent experiments of Flourens, Rolando and others, have extended it to the corpus striatum, and thalami nervorum opticorum. The same experiments have proved, that the power of exciting the voluntary

muscles is confined to the tubercula quadragemini, medulla oblongata, and spinal marrow. In evidence of this, the following experiments of Rolando may be cited.

Exp. 1. The brain of a rabbit was exposed, by removing the frontal bone, and slitting up the dura mater and the arachnoid membrane. The cerebral hemispheres were then pricked in every direction, without producing the slightest influence upon the contraction of the muscles.

Exp. 2. The hemispheres of the brain of a pigeon were removed by successive slices—the animal did not move.

Exp. 3. The cerebrum of another pigeon was perforated through and through, and was pricked in every possible direction, and sliced; yet the animal remained immovable. The same immobility was observed when the cerebellum was treated in a similar manner. But as soon as the tubercula quadragemini were pricked, a tremulous and convulsive motion was excited. The same experiment was made on a dog, and with a similar result.

Exp. 4. When the tubercula quadragemini of a large dog were pricked, slight convulsions were excited, which became violent when the medulla oblongata was treated in the same manner.

Exp. 5. The optic couches and the striated bodies of a rabbit were first pricked in every possible direction, and afterwards sliced away, without producing any evidences of muscular contraction.—(*Flourens Recherches Experimentales sur les propriétés et les fonctions du systême nerveux, p.* 18, *Paris*, 1824.

To these facts, may be added one of a different kind, tending to establish the same conclusions. Not long since, whilst engaged in making some galvanic experiments upon the body of a criminal who had been recently cut down from the gallows, I introduced one pole of a powerful battery into the cerebral hemisphere, through a small opening made in the cranium, while the other pole was applied to various parts of the body. Not the slightest muscular contraction was excited, although strong contractions were produced when the pole was applied to spinal marrow.

All these circumstances seem to corroborate the conclusion, that the injury of the brain only acted mediately in this case, in producing the tetanic condition,—first, by radiating irritation to those portions of the nervous centres which are endowed with

the faculty of exciting muscular contraction, by which it was transmitted along the motor nerves to the muscles themselves.

Case VII. *Tetanus from a slight lacerated wound of the face—death—two splinters of wood found in the wound.*—A poor man in a state of intoxication, mistook on his way home at night, for the street in which he resided, another which terminated abruptly, by a high embankment, upon the water's edge. Having arrived at the termination, without being aware of his situation, he fell over the bank into the water, and wounded himself slightly upon the external part of the orbit, over the malar bone. The wound, which ranged perpendicularly, did not exceed an inch in length, and did not involve the bone, or the structures within the orbit. For several days he experienced no marked inconvenience, but finally, considerable rigidity of the muscles of the jaw took place, which was speedily followed by well developed tetanus, which increased in violence until his death.

By the request of a medical friend who had been called to prescribe for the case, I examined the wound. It was found that some of the filaments of the portio dura nerve had been lacerated, but the principal mischief seemed to be attributable to the presence in the wound of two splinters of wood, one about three fourths of an inch in length, the other somewhat smaller. We were not permitted to prosecute the examination further.

The chief feature of interest presented by this case is, the comparatively trifling injury by which all mischief was induced. The wound was superficial, and of limited extent. There was merely laceration of the integuments, with an injury of a few nervous filaments; yet the continued irritation, kept up in the part by the presence of the foreign bodies, acting upon a constitution rendered unhealthy by habitual intemperance, was sufficient to give rise to tetanus and death.

Case VIII. *Tetanus.*—Benjamin Wells, stage driver, aged 35, was admitted into the Baltimore Infirmary, on the 28th of April, 1834, on account of several injuries received upon various parts of the body. He was bled, and had a cathartic administered. Confinement to bed, and a low diet were directed and persevered in for several days. On the 8th of May, he was so much better that he took a walk into the city, and on his return was caught in a shower of rain. On the 9th, he complained of soreness of the masseter muscles. ℞ Tinct. opii gtt. lxx. Slept quietly during the day. At 8 P. M. soreness and stiffness of the jaws. ℞ Tinct. opii gtt. cxx.

May 12. Not so well. ℞ Pulv. opii gr. ij—Submuriat—Hydrarg. gr. iv. every three hours—Blister to the back of the neck,—vesicated surface to be sprinkled with sulph. morphia gr. iv.—Frictions with the following ointment: ℞ Iodin. gr. v.; Emplast. lyttæ ʒ iss.; Pulv. capsicii. ʒ ij.; Ungent. mer. Fort. ʒ i.

11. Symptoms more unfavorable—Great difficulty of deglutition. Tinct. opii gtt. cxxx.; milk toddy freely through the day. At 1 o'clock P. M. his bowels being constipated, an enema of turpentine was administered—Tinct. opii ʒ i. per enema, four times a day. The attempt to swallow, at this period, threw him into violent convulsions. The blistered surface was dressed with mercurial ointment.

12. The symptoms of the case still more exasperated. Tinct. opii ʒ i. every three hours, per enema. At 3 o'clock P. M. he expired.

Examination of the body revealed considerable congestion of the pia mater, both of the brain and spinal marrow, and there was likewise some congestion of the substance of the brain; but this was probably the consequence of the large quantity of opium which was administered, as the individual was perfectly sensible to the last, and showed no evidence of disturbance of the functions of the brain. The outer portion of the substance of the spinal marrow did not present any very conspicuous evidences of disease, being only a little more injected than natural. But when the cord was split in a longitudinal direction, the whole of the central portion consisting of the grey colored substance which occupies that part of the cord, was intensely red and injected, and manifested a degree of vascularity altogether unusual.—*Reported by Mr. A. H. Bayly.*

Remarks.—Volumes have been written on the subject of Tetanus, yet after all the attention it has received, its pathology and treatment must still be acknowledged as far from settled. Nearly all pathologists, it is true, concur in referring most of its phenomena to irritation or inflammation of the spinal marrow, propagating their influence from this common centre, along the motor nerves, to the voluntary muscles. Nor can it be very well doubted that this view is correct, since all the leading characters of the disease are such, as to be rationally explained upon such a supposition. It is, moreover, corroborated by dissections; for although reports of cases are not wanting, in which

it has been represented that no lesion whatever could be discovered in the spinal marrow, there are many reasons for presuming that in many instances at least, the examination was confined to the superficies of the cord, which, it will be seen, from the last of the above cases, presented but trivial evidences of disease, when its central, gray colored substance, was intensely red and injected, and furnished marks of a high degree of vascular irritation. All the causes, moreover, which give rise to the disease, whether they consist of physical injuries, or irritants acting upon the first passages, naturally tend to centre their influence upon this portion of the nervous system. All the spinal nerves are composed of sensitive and motor filaments, which are distributed to the whole periphery of the system. The first are the proper recipients of all impressions made upon the parts which they supply, and they transmit them to the spinal marrow as the great centre destined for their reception, from whence the particular impression thus excited, is conveyed by the motor filaments, to the system of voluntary muscles, exciting in them contractions more or less intense, according to the force of the impression. In a similar manner, the same effects are produced by irritants acting upon the first passages. The entire extent of the mucous membrane receives an abundant supply of ganglionic nerves, which communicate with the spinal nerves along the whole spinal column. Each spinal nerve is indeed associated with the ganglionic system, by means of a direct branch of communication; and according to Scarpa and some others, this branch always unites with the posterior, or sensitive radicle of the spinal nerve, and not with the anterior, or motor radicle. Hence, an irritation developed upon any portion of the mucous membrane lining the digestive organs, whether from crude and indigestible articles of food, intestinal worms, or other causes, is readily transmitted to the spinal marrow by this associating filament; an impression is there developed, as under other circumstances, which is propagated by the motor filaments to the muscular system, and spasm or contractions are produced, according to the intensity of the influence operating. Hence, in one case, whether the offending cause by an injury inflicted upon any part of the body, or an irritation developed in the mucous membrane of the stomach and intestines, there may be an inconsiderable disturbance of the nervous or muscular systems, or both at the same time; in another,

moderate clonic spasms, or convulsions, more or less violent and continued; and in a third, violent tonic spasms of particular muscles, or of the muscular system in general, as in trismus, tetanus, &c. The fact, that the most violent forms of tetanus sometimes supervene upon very trifling injuries, does not militate against the correctness of this explanation. The irritation at first developed, is not sufficient to produce such an effect; but when it continues for some time, its influence upon the spinal marrow goes on accumulating, until it acquires a high degree of intensity, when it explodes, as it were, upon the muscular system, through the motor nerves, and excites spasms as violent and formidable as those which are capable of being produced more speedily by a more serious injury. The greater tendency of slight injuries, especially injuries in fibrous or aponeurotic parts, to produce tetanus, than of those which are more considerable, or which affect structures of a different character, is a fact particularly deserving attention, inasmuch as it will assist in explaining some of the most difficult problems in the pathology of the disease. All the white fibrous tissues are nearly destitute of red vessels; consequently when they become injured, but very little vascular reaction can take place within their substance, or in the vascular system generally, since they are placed so far out of the pale of the latter, that it will experience but an inconsiderable degree of disturbance from any sufferings which the tendons, ligaments, aponeuroses, &c. may sustain. The nervous system, however, does not so effectually escape. The sentient nerves receive the whole influence excited by the injury, which is propagated by them to the spinal centre, and from thence to the voluntary muscles, thus giving rise eventually, to violent tonic spasms, even while the vascular system is but slightly disturbed. It is indeed a fact not less worthy of remark, that when vascular reaction takes place in the part, or in the system generally, the development of tetanus is prevented. Hence it frequently happens, that although an individual may have been threatened with the symptoms of this formidable malady, so soon as acute inflammation, or a free suppuration becomes established in the wound, or so soon as a free and open form of excitement of the vascular system shews itself, all the tetanic symptoms vanish, and the danger from that source is considered to be at an end;—the vascular reaction, under such circumstances, giving a new di-

rection to the irritation, and preventing it from becoming concentrated upon the nervous centres, and especially the spinal marrow. Upon the same principles can be explained the great liability of severe lacerated wounds of more fleshy and vascular parts, to give rise to tetanus. The violent contusion and laceration of the delicate vessels so far impair their vitality as to completely destroy their power of reaction, or at least, to render it so feeble and inefficient, that complete reaction, amounting to free healthy inflammation and suppuration, cannot take place. But while this is the condition of the vessels, that of the nerves is different. The injury sustained by them naturally inflicts upon their sentient filaments an intense degree of irritation, which, extending to the points at which they impinge upon the spinal marrow, accumulates upon that part of the nervous system, until it attains a certain intensity, when it is transmitted to the muscular system, and excites the train of consequences already adverted to. It is from this cause, that lacerated wounds, which give rise to tetanus, scarcely ever exhibit any evidences of energetic plastic inflammation, or healthy suppuration; and it is well known, that where these conditions can be excited, not much fear of tetanus need be entertained; and even if symptoms of that disease have appeared, they generally subside with the development of free suppuration from the wound.

It is hence manifest, that in tetanus, the vital correlationship or antagonism of the different systems, is completely suspended or broken up. The nervous ramifications and their centre, and afterwards the voluntary muscles, sustain the entire onus of the disease. Nearly the whole influence of the cause giving rise to the malady, is concentrated upon these systems, while the vascular, and the apparatus of nutrition generally, are divested, to a great extent, of their proper degree of vital force, it being expended upon the nervous and muscular apparatus, in the violent and preternatural acts which they are called upon to perform. Hence, the pulse is generally small, frequent and irregular; the secretions are more or less interrupted and perverted, and other functions appertaining to the system of nutrition are more or less deranged. It was this which led Rush, in speaking of this disease, to remark, that the whole excitability of the vascular system is concentrated upon the muscles; while in fever, it is transferred from the muscles, and concentrated upon the arte-

ries. The same principles naturally lead to an explanation, why it is, that copious bleeding is so often detrimental in the treatment of tetanus, while free stimulation with opium, brandy, wine, and other articles, is frequently productive of the most happy effects. The free abstraction of blood, so far enfeebles the vascular system, as to render it incapable of resisting the tendency of the nervous apparatus to rob it of its vital force, and concentrate it upon itself. It also destroys its power of reacting, and setting up those changes, by which the ascendency of activity in the nervous system can be counteracted. The stimulating influence of opium and other agents, increases the powers of the vessels; and by elevating their activity to a point beyond that possessed by the nerves, they are enabled to abstract from the latter a portion of their vital force, so that an equilibrium between the two systems is either restored, or the action of the vascular obtains the ascendency, and in the development of a general reaction, the mischievous tendency of the violent irritation sustained by the nervous system, is effectually obviated. In bringing about this change, the sedative effects of the opium must likewise be taken into account. While that article stimulates, the operation of its sedative influence upon the nervous system (the part of the organization which more especially experiences this operation) diminishes the susceptibility of that apparatus, and thus renders it less liable to be seriously influenced by the irritating cause, and more favorable to resume its healthy correlation or antagonism with the blood vessels.

From these considerations it is probable, that while the spinal marrow is affected in all cases of tetanus, the character of the morbid process in which it is involved, is not always the same. In some instances, it is unquestionably in an intense state of inflammation; but while this fact is incontestible, it is equally true, that in many instances of death from tetanus, no evidences of inflammation, either in the spinal marrow, or its membranous envelopes, can be discovered by the most careful investigations. In such cases, the pathological state seems to consist in a state of exalted irritation of the spinal cord, without inflammation, or at least, without manifest hyperemia, and to be unattended with any appreciable alteration of the structure or consistence of the part. A similar condition is frequently found in that organ in epilepsy, and some other nervous diseases, and in the nerves themselves, in neuralgic, and other affections to which they are

in a proportionate degree. With this object, wine, brandy, turpentine, camphor, &c. have been sometimes administered with an unsparing hand, and cases have been reported, in which they alone have proved effectual in conducting the case to a favorable issue. Revulsions along the spine, and indeed to the surface of the body generally, will likewise be beneficial in some cases, by counteracting the tendency of the whole irritation of the system to concentrate itself upon the nervous and motor apparatus;—and with the same object, we have employed large doses of calomel internally. It makes a strong impression upon the entire mucous surface of the intestines, and thereby transfers irritation from the situation where it is productive of so much mischief.

The local injury should be treated upon those principles which tend to allay nervous irritation, and promote the requisite degree of vascular activity in the part. All sources of irritation should be sedulously removed; and with the view of soothing the sufferings of the nerves, anodyne applications should be made to the part, while by warm emollient exciting applications, free inflammation, and healthy suppuration should be established as soon as possible. To secure the attainment of this object, it will sometimes be necessary to resort to applications of even an active stimulating character; but the indiscriminate practice of dressing such injuries with turpentine, cantharides, and escharotics, may prove highly prejudicial.

But after all, difficulties almost insurmountable must be encountered in the treatment of this formidable disease. For although we may draw distinctions, and prescribe rules adapted to each, it is exceedingly difficult, and too often impossible, to discriminate, by any set of phenomena, between the different pathological states with which the disease is connected. Hence it is, that remedies frequently produce so little effect, even when dictated by the soundest judgment, and cases apparently alike in all essential particulars, furnish very different results, under precisely the same course of treatment.

Case IX. *Convulsions recurring at intervals for eighteen months—death—exostosis of the second cervical vertebra encroaching so much upon the spinal marrow as to produce an interseclion of one half of its substance, merely leaving the membranes.*—Rather a stout man was affected, at frequent intervals, with violent convulsions and much suffering, for upwards of

eighteen months, during which time he was submitted to a variety of treatment, without any permanent benefit. In the progress of the case, the convulsions became more violent, and recurred at shorter intervals, until he was finally released by death.

At the request of my friend, Professor Dickson, who had occasionally attended the case, I examined the body. Attention was first directed to the brain, which was found indurated, in a very remarkable degree, throughout the whole extent of its substance. The spinal canal was next carefully laid open, so as to expose the entire length of the medulla spinalis and its envelopes. Nothing remarkable was observed, except towards its upper part, where one side of the second cervical vertebra was found to be affected with exostosis, projecting inwards and backwards upon the spinal marrow, and presenting an obtuse margin, which encroached so much upon one of the hemispheres of that organ, as to occasion an atrophy, or intersection, of its corresponding portion, amounting almost to a complete division of the nervous substance of one half the cord, merely leaving the parts connected by the membranes.

There can be but little doubt, that the constant irritation kept up by the presence of the exostosis upon the spinal marrow, was the cause of the violent repeated convulsions with which the individual was so long affected. It is also probable, that the same irritation propagating its influence to the brain, there gave rise to the modifications of nutrition, which resulted in the induration of that organ.

The preparation was preserved, and is still in my collection.

Art. III. *Contributions to Ovarian Pathology.*

Case I. *Ovarian Cyst containing upwards of twenty-three gallons of fluid.* By F. E. B. Hintze, M. D. of Baltimore.—A female, aged about 40, who had given birth to several children, was the subject of this case. About seventeen years anterior to the period of her death, she labored under suppression of the catamenia, and her abdomen becoming tumid, awakened a presumption of pregnancy. The usual period of utero-gestation having elapsed, and the abdominal distension still increasing, medical advice was sought. After an observance for years, of

the prescription of various physicians, and unwilling to submit to the operation of paraceutesis, she at length became so large as to be incapable of taking any exercise, and was consequently confined to her bed until she sunk from exhaustion.

After death, it was found impracticable to inter her body in its enormously enlarged state. Such was her size, that she could not be brought down the narrow stairway of the house, and the joiner was unwilling to undertake the construction of a coffin of such unusual dimensions. For these and other reasons, arising from the unwieldy condition of the body, her friends were induced to consult me upon the most effectual means of diminishing its size.

Upon my arrival, I found the body lying on a double bedstead, her back being near the frame on one side, and her distended abdomen extending to the opposite side. On plunging a trocar through the walls of the abdomen, only a small quantity of fluid, of the consistence of treacle, escaped through the canula. I next made a considerable incision, when numerous large concretions escaped, which emitted a feculent odor. They were followed by a fluid, similar to that which issued through the opening made by the trocar. The quantity of fluid discharged was measured by my friend Dr. Charles Maguire, and found to exceed twenty-three gallons.

After unloading the cyst, we proceeded to dissect it from the peritoneum, diaphragm, and abdominal viscera. On tracing it towards the bladder, we found a communication between that organ and the cyst. A similar communication existed between the cyst and the inferior portion of the colon. On inquiry, we ascertained that the individual had not, for three weeks previous to her death, voided either urine or feces. The sac itself was found attached by a narrow neck, to the side of the uterus, in the natural situation of the ovaria, but that body had entirely disappeared. Owing to its numerous perforations, the cyst could not be inflated. After it became dry, it was distended with hay, which accounts for its contracted condition, and imperfect preservation.*

* Through the politeness of Dr. Hintze, this enormous cyst is now in our possession. It is nearly spherical in shape, and its walls, which possess considerable thickness, are of a compact fibrous structure.—Editor.

Case II. *A large Ovarian Tumor terminating in suppuration.* By the Editor.—In August, 1826, I was requested by my friend, Professor Frost, to examine the body of a black woman, who had died under his care, of an enormous enlargement of the abdomen of long standing. In the external configuration of the body, most that was remarkable was, the enormous enlargement of abdomen, which was indeed so great as to force the ribs and diaphragm upwards, and encroach considerably upon the cavity of the thorax. This enlargement, when viewed superficially, seemed to be uniform, being equally developed on both sides of the abdomen. But when examined by the touch, through the abdominal walls, some slight inequalities could be distinguished.

When the abdomen was laid open, it was found occupied by a large round tumor, which had forced all the intestines upwards, so as to make them encroach upon the diaphragm. This tumor was found, on a more careful examination, to have its origin in the left ovary, the natural aspect and configuration of which was completely lost in the diseased mass. It was round externally, presenting occasional elevations and depressions of small extent, and adhered with the intestines at several points. Its consistence was firm, except at its upper point, where a distinct fluctuation was perceptible. On opening it at this point, about a quart of offensive purulent matter flowed out. The structure of the indurated portion was somewhat lobulated, and varied much in its consistence, in different portions of the mass.

Remarks.—This case is important in several respects. In the first place, although the disease was of long standing and of gradual development, the diagnosis was obscure. Indeed, no positive conclusion could be formed previously to the death of the patient. Of several physicians who had seen the case, some supposed it to be dropsy of the ovary; others disease of the uterus, while some were of opinion, that the tumor consisted in a chronic enlargement and induration of the omentum. It probably had its origin in an obscure and protracted inflammation of the ovary, which after having attained the enormous size presented by the tumor, had already commenced a disorganizing process, which was taking place by suppuration. From this cause, therefore, such a degree of irritation and hectic fever was developed, as to exhaust the energies of the patient, and finally lead to a fatal termination.

It is manifest, when the volume of the tumor, and its intimate

connections and adhesions, with the surrounding parts are considered, that no means of relief could be afforded, and that an attempt to extirpate it, must necessarily have eventuated in the destruction of the individual.

Case III. *Ovarian Tumor, in which was found a fragment of bone surmounted by five molar teeth.* By J. W. Greetham, M. D. of Baltimore, *with references and remarks by the Editor.*

On the 7th day of August, I was called to see Maria ***, a colored woman, in one of her usual attacks of constipation, which was accompanied by a severe pain of the bowels, resembling cramp colic, with much vomiting of a muco-purulent substance. She was relieved in two days, so as again to attend to her domestic duties. On the 13th I was again desired to see her. The pains had returned, and what was unusual, there was great prostration of strength. Every means resorted to for her relief proved ineffectual. Before proceeding further with the case, I shall give a brief statement of her health for the last ten years, previous to which I have heard nothing which would induce me to suppose she was affected in any way. About the year 1824, whilst whitewashing the ceiling of her house, she fell upon one of the spokes of the back of a chair, which entered her vagina, and tearing its way through the left side, continued some way into the cavity of the abdomen. She was at the time attended by Dr. Donaldson, and so far recovered, as to be, in less than two years after, the mother of twins. She had previously borne three children. From the time of this accident, however, there was an appearance of disease in the region of the left ovary, which afterwards proved to be a dropsy of that organ. The tumor continued gradually to increase, until the year 1831, when I first saw her. She had, for some time previous to this, been subject to the constipation and pain mentioned in the first part of this report, which were always relieved in a few days, by the usual means. About a year after this, she was seen by Drs. Steuart and Baker, who advised the operation of paracentesis, but the woman would not submit. Her general health continued good, with the exception of these attacks, which occurred four or five times a year, until this time, when she was seen by Drs. Smith and Steuart with me. We again advised tapping, which she positively refused, saying she would rather die. She died on the 22d, about 2 o'clock, p. m. At 8 the next morning, in the presence of several physicians, I open-

ed the body. We found a tumor firmly adhering to the walls of the abdomen, and less firmly to the peritoneum covering the intestines, containing by measurement forty-five half pints of fluid. There was scarce a vestige of the omentum left, or it might have been that it was originally very small. From the resemblance of the fluid contained in the tumor, to that which had been vomited, we were of opinion there must be some communication, but after an accurate investigation, this was found not to be the case. The tumor extended from the pubis to the diaphragm. When we raised the uterus, it was found in a perfectly healthy state. The right ovary, and indeed all the right appendages were also healthy. On the left, the ovary was entirely gone, and only about an inch and a half of the fallopian tube left, attach-

Upper figure, front view of the bone, with the teeth disposed upon its surface.
Lower figure, back view of the same.

ed to the uterus. On examining the interior of the sack, we found embedded in its substance, a bone, which upon a first view, before it was cleaned, we all pronounced to be the temporal; however, after taking it home and cleaning it, I discovered three molar teeth, perfectly formed, and covered with enemal, and the rudiment of a fourth. A sketch of the bone and teeth is subjoined.

It is not my intention to enter into a discussion relative to the nature and cause of this disease, but I cannot refrain from a few remarks. Was the disease caused by the injury received ten years ago, or was it an extra uterine fœtus? If by the injury, from whence the bone? If an ovarian conception, what became of its other parts? I am inclined to the former opinion, for we know that in ovarian tumors, such substances frequently are found, and not only in adults, where a misconception might be suspected, but even in children, where this could not be the case. Nor are they confined to ovarian diseases, or even to women; for there have been more than one well authenticated instance of portions of bone, hair, &c. bearing some resemblance to a fœtus, found in male subjects. I incline to this opinion, because I really do not believe that the other bones could ever have been absorbed. Nor do I know of any one well authenticated case, to prove that such substances can be absorbed.

Remarks.—This case, though highly interesting, is not without numerous parallels. The records of science contain many instances, in which the ovaria have been found containing not only bones and teeth, but likewise hair, and other productions of an anomalous character. Nor is the accidental development of these products confined to the ovaria. Teeth and bones, as well as hair, have been found in other parts of the body, and in some cases, in an advanced state of formation. It may not be amiss to refer to a few such examples, which are within our immediate reach.

Ruysch reports the case of a man, in whom he found a tumor of the stomach, containing hairs and molar teeth.* The case of a young female, aged 17, is reported,† who at that age, became affected with a tumor in the region of the spleen, which gradually increased in size, and when she attained her twenty-first year, it was so large, that her body measured four ells in cir-

* Advers. Anat. Dec. iii. tom. ii. † Breslauer Sammlung, 1722, p. 76.

cumference, and the abdominal tumor nearly reached the knees. When she attained her thirty-eighth year, she expired, and on examination of her body, besides a considerable quantity of water, the left ovary was found converted into a large cyst, which, with its contents, weighed about fifty-four pounds. The substance of the tumor was thick, fatty, and of a meliceric consistence. It contained a considerable quantity of hair, some of which was short, while a part consisted of locks of an inch in thickness, which were fine and flaxen, and two feet in length. The inner surface of the sac also, had short hair growing from it. Interspersed throughout the tumor, there were several fragments of bone of irregular configuration. They were eight in number, one of which was seven, another eight, inches long; several of them were at least two inches broad. Four of these fragments were surmounted by sixteen teeth, presenting the characters of the incisores, canine, and molares. One fragment, of a triangular configuration, contained six molar teeth, and one incisor. None of the bones presented an accurate representation of any of the natural bones of the body, yet in the compactsnes, and the size and perfect development of the teeth, they resembled the condition of these parts in an individual of at least twenty years old.

Schützenkranz* found, in the diseased ovary of a girl of fifteen years old, some long hairs, a fragment of bone which resembled the upper jaw, and several teeth; and Bicker† has described a diseased ovary, which contained hair, bones, and teeth. In a case observed by Barnes,‡ a tooth was found in the orbit of the eye; and Schill found, in a man fifty years old, in a cyst situated beneath the tongue, but not pertaining to the jaw, three fully formed teeth.§ A case is also reported‖ in which, in a fatty tumor adhering to the diaphragm, twenty-one fragments of bone, four teeth, and a bunch of hair were discovered. A woman, who, after having been married about nine years, experienced an interruption of her menstrual discharge, and became affected with a tumor about the umbilical region, which

* Merwärdige Handel fer en den praktiska Forlossnings. Stockh. 1785.
† Waarneming van een vogenschyn lyk bevrugt eyernest, Rotterd. 1794.
‡ Medico-Chirurgical Transactions, vol. iv. p. 316.
§ Meckel's Archives für Physiologie, Bde. i. p. 538.
‖ Berlin. Samml. Bde. iii. p. 264.

finally ulcerated, and threw out a fleshy mass, containing an incisor tooth. She died five years after this event, and Scortigagna, on examining the body, found a large sac within the abdomen, adhering intimately with all the neighbouring viscera. It communicated externally, and contained, besides portions of an encephaloid and fatty character, several irregular fragments of bone, one of which resembled somewhat a maxillary bone, a quantity of hair, and a number of teeth of different characters.* Cheston describes a large tumor on the right ovary, which contained two quarts of fluid, a considerable quantity of dark colored hair, some fragments of cartilage, and one canine tooth.† In a similar ovarian tumor, Murray found its walls partially cartilaginous, and besides several other substances within, a considerable quantity of hair without roots, some of which was half an ell in length, and an irregular piece of bone, in which were distinct alveola, and several teeth, presenting the characters of canine, incisor, and molar teeth, which were as large as those of a child.‡ Cleghorn§ found in an ovarian tumor, hair, irregular pieces of bone, eight incisor, three canine, and sixteen molar teeth; and a case was observed by Gooch,‖ in which, in the centre of the tumor, there was a fatty mass, containing a considerable quantity of hair, some of which was a foot in length, and two teeth. Sœmmering¶ found, in a tumor of this kind, a fatty mass, in which were lodged teeth covered with enamel; and Dumas** observed a case, in which a fleshy mass, which occupied an ovarian tumor, contained teeth, one of which seemed to be deeply embedded in the diseased mass. In a case described by Baillie,†† the inner surface of an ovarian cyst had a considerable quantity of hair growing from it, and several teeth implanted upon its substance.

Besides these examples, the following authors are referred to as having described others of a similar character: Tyson, Needham, Sampson, Nicholls, Orteschi, Cocchi, Mosti, Ballard, Nys-

* Memoria della Societa Italiana di Verona, tom. xiv. p. ii. p. 305.
† Path. Untersuch. und Beobacht. Kap. iv. p. 58.
‡ Progr. ad actum Inauguralem, &c. Upsal, 1780.
§ Medical Commentaries, 1790, p. 100.
‖ Medical and Chirurgical Observations of Lond. 1772.
¶ Aussatzen su Baillie, p. 231.
** Fourcroy Medécine Eclairée, tom. ii.
†† Morbid Anatomy.

ten, Blumenbach, Laflize, Riche, Mery, Ploucquet and Autenreith, Grambs, Corvinus, Mederer, Young, Baudelocque, Merriman, Anderson, Milman and Coley.*

Many other cases exist on record, but it will not be necessary to refer to them. One reported by Dr. Gordon,† however, deserves to be noticed. In the thorax of a woman, a tumor was observed, which, during the life of the individual, protruded the walls of that cavity so as to resemble an aneurism. It occupied the interior mediastinum, and adhered intimately to the sternum. Besides a sebacious kind of matter, and some hair, it contained a portion of bone, which resembled somewhat a portion of the superior maxillary. Upon this latter, there was a kind of alveolar border, along which were ranged several teeth. The total number of teeth was seven, of which there were two incisors, two canine, and three molars. Other cases exist on record, in which hair, and fragments of bone of a similar kind have been found in the testicle; and Dupytren has reported an instance, in which the rudiments of a fœtus were found in the mesentery of a boy. But we cannot extend these citations further; nor is it necessary that we should do so, enough having already been said to shew, that such developments are not unusual, not only in the ovaria, but in other parts of the body, and altogether unconnected with the genital organs.

A more important consideration is, to determine the origin of the anomalous productions. This subject has been very ably discussed by Meckel,‡ who has arranged the sentiments which have been generally entertained, in reference to the bones and teeth accidentally developed, under two heads: 1. Those who maintain that they are supernumerary parts, formed by the same act of fecundation, by which is produced the individual in which they are found: 2. That they are produced in an organization already developed.

It has been urged against the first of these hypothesis, that if these anomalous bones and teeth were supernumerary parts of the same conception, there is no reason why they should take place more frequently in the ovaria, and the organs of generation, than in other parts of the organization. Yet such is in-

* J. F. Meckel Ueber regelwidrige Haar und Zahnbildungen, Archives für Physiologie, Bde. i. p. 519, Halle, 1815.

† Medico-Chirurgical Transactions, vol. xiii.

‡ Archives für Physiologie, Bde. i. 1815.

contestibly the fact; for although there have been cases reported, in which these accidental products have been found in other parts of the body, they are too few in number to constitute an exception to the general rule. Another argument of equal force may be deduced from the fact, that in all but a very few instances, these bones and teeth have been found in the female sex. Yet if they were produced in the manner represented, there is no reason why they should not occur, with equal frequency, in the male. While, therefore, the fact is incontestible, that some of the rudiments of a fœtus may be generated by the same act of fecundation, which produces a perfect and well formed individual, and be included within the latter, as in that form of *monstrosity* by *diplogenisis*, which has been described under the appellation of *monstrosity* by *inclusion*, as in the cases described by Dupuytren and others, there are no reasons to justify the conclusion, that these rudimentary bones and teeth are produced in this manner.

The second hypothesis has been variously modified. By some, the origin of these adventitious developments has been referred to an extra-uterine conception; and they have consequently been regarded merely as the debris of a fœtus. This opinion, however, cannot be maintained. It is completely controverted by the facts, that no other part of a fœtus are ever found, under such circumstances, than irregular fragments of bone, hair and teeth; that the number of the latter, (there being in some instances more than a hundred) is too great to belong to one, or even two, or three fœtuses; that the bones have no satisfactory resemblance to any of the natural bones; that they are too irregular to owe this character to the influence of any cause operating the destruction of a product of conception; and finally, that there are no facts to prove, that the other bones of a child can be thus effectually destroyed, while the jaws escape, but many to demonstrate, that such is not the case, since those of extra-uterine fœtuses, proper, have been known to be carried upwards of fifty years, without undergoing any such change.

Another modification of this opinion, is that which refers them to an extra-uterine conception, but one which is incomplete, and only capable of forming some of the rudiments of a fœtus. The principal arguments which have been adduced in support of this hypothesis are, the extreme youth, or old age, of the individuals, in which such productions occur, their

procreative powers being, in consequence of this, too feeble to develope a perfect fœtus, and the assertion made by some, that the development of these productions is attended with the symptoms of pregnancy, or takes place simultaneously with a perfect conception. These facts render it highly probable, that hairs, bones, and teeth, in many cases at least, have their origin in the manner alleged; yet there are others, which prove that they are not always produced in this way. Thus, in some of the cases, the individuals have been too young to have had connexion with a man; in others the condition of the organs has been such as to prove that no such connexion had taken place; and the fact, that these formations are sometimes found in the testicles, and other parts of the male, renders it impossible that this explanation can apply to all cases. In one of Baillie's cases, the individual was only twelve years old, and the hymen was perfect! The other, though old enough to indulge in sexual intercourse, could not have done so, as the hymen was entire, "the edge of the membrane being quite sound and natural, and the aperture in it remarkably small." The uterus, too, was preternaturally small, and contained no membrana decidua, which it almost always does in extra-uterine conceptions. The subject of Lanzweerde's case was only eleven years old; that of Nysten's twelve; and those of the examples reported by Schuetzer, and Stalpart Vander Wiel, fifteen. In all of them, the signs of virginity were strong; and in some, the symptoms denoting the existence of the anomalous development, had been present for some time. It has, moreover, been already remarked, that hair and teeth, are sometimes found in the testicle, and other parts of the male, where of course copulation could have had no agency in their production. Besides other cases which exist on record in proof of this fact, there is one reported by Wardrop, on the authority of Colman, which may be referred to. It occurred in a gelding, in which a cyst was found, a little under the right kidney, containing a fatty matter, hair, and some teeth.*

These considerations render it incontestible, that while these substances may be, in some cases, the product of an imperfect conception, they may be formed independently of the concurrence of the act of copulation in the individual containing them.

* Baillie's Morbid Anatomy, sixth edition, by Wardrop, p. 350, London, 1830.

It has hence been suggested by Meckel, that the preternatural excitation of the venereal organs, by masturbation, and other causes, may be alone sufficient to develope a kind of act in the ovaria, analogous to conception, the result of which is, the formation of these rudimentary productions, having an analogy with the elements of a fœtus. In favor of this opinion, he appeals to the case reported by Nysten, in which the clitoris was found preternaturally large,—a circumstance which he thinks proves, that the individual was addicted to the practice of masturbation. Hence he remarks, that although females affected with these productions, who are sufficiently advanced in life to be capable of indulging in the venereal act, present the physical signs of virginity, this is no evidence, that in a moral point of view, it has been held inviolate. The reason why such productions are generally found in the ovaria, he supposes to be owing to their greater productiveness, dependent upon the circumstance, that they are the organs in the female, whose province it is to produce the new being, and perpetuate the species. He supposes, with Verheyen, Blumenbach, and Roose, that the corporea lutea, which were formerly regarded as an evidence of a previous conception, may likewise be induced, by a preternatural excitement of the venereal organs by masturbation, and that the accidental development of hair, bones, and teeth, merely differs from the production of those bodies, in the greater activity of the forces employed, and the greater perfection of the products which are the result of their agency. Hence he conceives, that as this mode of stimulation may give rise to such results, females who are addicted to such habits, may incur a species of *Lucina sine concubitu.**

This explanation, though ingenious, is altogether hypothetical. Nor, if well founded, does it explain the development of these formations in the male, or in parts of the female remote from the ovaria and the genital organs. While, therefore, a blighted extra-uterine conception may explain some of the cases, there are others, the production of which can only be accounted for upon those laws of the organization, which direct the development of monstrosities by *diplogenisis.* A double conception takes place, in consequence of a fruitful union of the sexes; but from some cause, the regular evolution of one

* Archives für Physiologie, Bde. i. p. 581.

ovum is interrupted, while the other progresses, so that the blighted ovum merely has some of its rudiments formed, which become included in the healthy one, and thus we have constituted what is denominated *diplogenisis* by *inclusion*.

From these considerations, it is apparent that in all cases, these productions must be referred to a conception; but, that they may either originate in an extra-uterine conception taking place in the individual in whom they occur, or in a conception which gives rise directly, and at the same time, to the adventitious formations, and to the perfectly developed organization in which they are included. The first will explain the formation of cysts containing hair, nails, bones, and teeth, found in the ovaria of females who have indulged in sexual intercourse;—the second those which are met with in the ovaria, and other parts of the body of females, who from youth or other causes, have not participated in the venereal act, as well as those which are found in the male.

ART. IV. *Note on Dysentery, and the employment of Nux Vomica and its preparations in the treatment of that disease.* By the EDITOR.

WE have repeatedly, in the course of our practice, met with cases of dysentery, during the autumnal months, which we have found exceedingly unmanageable. We have been particularly embarrassed and disappointed in the management of this form of disease, during the last and the present autumn, in the Baltimore Infirmary. We are sensible, that part of our difficulties have originated from the advanced stage of the disease at which many of the individuals have been received, and the irregular habits of many of the subjects whom we have been called upon to treat. But besides such cases, there have been others, to which the same remark will not apply. Many individuals have come in, laboring under the common intestinal fever of the season, complicated with dysenteric symptoms, in whom, after the fever was removed, the affection of the large bowels continued, and could not be readily controlled by the ordinary remedies. In some, these symptoms did not make their appearance until subsequent to the subsidence of the

febrile affection, and were only developed during convalescence, by some imprudence in diet, or other causes.

The cases of the disease which were admitted after several days illness, were generally of a very exasperated character, and were doubtless rendered more so, independently of other circumstances, by the imprudence of the individuals themselves, either in diet, or the domestic remedies employed for their relief. It is very common with the more ignorant part of the community, when attacked with dysentery, to disregard the early symptoms of the disease, and to continue to indulge in crude and indigestible articles of food. Many of them, indeed, finding sometimes a momentary mitigation of the griping and tenesmus, from the use of spiced alcoholic draughts, are in the practice of resorting to them, as a common domestic prescription; and the consequence is, an increase of the inflammation of the mucous membrane of the intestines, and a general exasperation of all the symptoms of the malady. Many of the individuals who have fallen under our care, have been submitted to this species of discipline, and have only ceased to rely upon their own favorite prescriptions, when the disease has reached the ulcerated point, and the whole of the vital forces have become completely prostrated. Several such have been admitted, with the abdomen tender and tumefied, or contracted and drawn inwards towards the spine; the pulse hurried, feeble, and small; the tongue black or brown, and perfectly dry and scabrous; the countenance collapsed, decomposed, dark colored, ghastly, and cadaverous; the eyes sunken and lustreless; the whole body emaciated and exhaling an intolerable fœtor, and stinking mucous, or sanious, flocculent stools draining away involuntary in bed. In some of these cases, the nervous system has been considerably affected, as manifested by low delirium or coma, and muscular twitchings. Few, in which the disease had reached this degree of intensity, have recovered, and dissections have clearly shewn, that such an event could not be anticipated, under any variety of treatment. The mucous membrane of the cæcum, colon, and rectum, in fatal cases, has been found crowded with extensive ulcerations, from one extremity to the other; the intermediate portions thickened and covered with a firm tenacious albuminous deposite, in some instances perfectly black, and so adherent, as to be with great difficulty detached from the membrane. This black color of

these adventitious deposites, we have found to be of frequent occurrence in what is called typhoid dysentery; and we doubt not, it is the condition which has been described by many writers, as gangrene of the intestines. In some instances, the ulcers have perforated entirely through the walls of the intestine; and in others, they were rendered so fragile, as to tear under the slight force of handling them.

There were, as previously remarked, other cases of a milder form,—attended with more or less fever, frequent inclinations to stool, great griping and tenesmus, and the discharge of mucus mixed with blood, and occasionally with more or less feculent matter. These cases were generally attended with a sense of weight in the region of the abdomen, tenderness on pressure, especially in the course of the colon, and sometimes with a red contracted tongue, but frequently with one more expanded, and furred upon the surface. Sometimes the dejections, instead of consisting of mucus, assumed a more watery and flocculent character,and were highly offensive, particularly when the disease had continued for some time. But whatever were the modifications assumed by the disease, it was generally difficult to control, and when apparently arrested in its progress, it manifested a strong tendency to recur after the lapse of a few days.

The treatment was very much varied, as the cases themselves presented great diversity of aspect. Acting upon the principles suggested by the pathological state, the greatest reliance was placed upon local blood-letting, by means of cups applied to the abdomen, revulsion excited by blisters, occasional aperient doses of castor oil, demulcent drinks and emollient injections, and anodynes administered as well by the mouth, as by injection and suppository. The anodyne generally consisted of some of the forms of opium, either given alone, or in form of Dover's powder, combined with small doses of calomel or blue pill. In many cases, this course of treatment afforded relief, but in some it entirely failed, and in several where the remedies were found beneficial, the good effect was only temporary.

Emetics were employed in a few cases, but without any very marked benefit. Scruple doses of calomel, alone or combined with opium, so popular in the treatment of this disease, had a full and fair trial, but with the exception of a few cases, and

those of a recent character, they not only failed, but sometimes increased the mischief. In some of the worst cases, however, opium in any form was decidedly injurious, and tended manifestly to increase the internal congestions and the dryness of the tongue, and exasperate the nervous symptoms.

Foiled of success, and discouraged by the general result of all these remedies, we have been induced, within a short time, to make trial of the nux vomica, in some cases of this disease. We have as yet only had an opportunity of using it in a few instances, and those not of the worst character, yet so difficult to manage, that some of them had previously resisted all our remedies. The cases selected, were those which were not attended with much febrile excitement, but which were characterized by frequent calls to stool, considerable griping and bearing down, and an inability to pass any thing but mucus, or that material streaked with blood. In some of the cases, the remedy, though certainly beneficial, was not competent alone to accomplish a cure; in others its good effects were so striking, as to inspire considerable confidence in its virtues, and to induce us to make this notice, with the view of inciting others to give it a fair trial under similar circumstances. We do not wish to recommend it to the exclusion of other means, or to inspire a hope that it will be found capable of itself of curing the disease in a large number of cases. But from what we have seen of its effects, we feel assured, that it will be found a useful adjuvant, and that in some cases at least, it will afford relief, when other remedies fail.

We commenced at first by administering the nux vomica in powder, in doses of seven grains, three times a day, as recommended by Vaux of Ipswich, England. In one individual to whom the article was administered in this form, the good effects were prompt. The griping, tenesmus, and frequent calls to stool were speedily checked; the discharges became natural, and the patient, who had suffered much, and had failed to obtain relief from the treatment previously prescribed, expressed himself delighted with the remedy. It was also beneficial in other cases, as were the alcoholic extract of Pelletier, administered in doses of two grains, three times a day, and the strychnia, given in form of an acetate, in doses of one twelfth to one sixth of a grain, formed by dissolving the strychnia in acetic acid. Our comparative trials of the different preparations of the article have

as yet been too limited, to enable us to decide which deserves the preference; but we are inclined to prefer the powder, and next to that the extract. It will perhaps be beneficial to combine with whatever form is employed, a small quantity of opium, or some of its preparations.

The good effects of nux vomica in several of the affections of the mucous membrane of the digestive organs, have long been known, but it is highly probable, that the remedy has not been as generally employed as it deserves. Hagström, a Swedish physician, was, we believe, the first who recommended it in dysentery, and his testimony in its favor was of the most flattering character. The celebrated Hufeland* states, that he derived great benefit from it in the treatment of epidemic dysentery; and Thomann† remarks, that he has seen it effectual in allaying the tormina, and abating the inclination to go to stool. Richter‡ observes, in reference to the efficacy of this remedy in dysentery, that the extract, like opium, tends directly to allay the irritation of the alimentary canal, and subjoins, that combined with the article just mentioned, it proves beneficial where opium alone fails to do so. The following is the form in which he administers it:

℞ Extract. Nucis Vomic.	℈ ss.
Mucillag. Gum. Mimos.	ʒ i.
Aqua Font.	ʒ vi.
Syrup. Althæ,	ʒ i.

M. S. Two tables-poonsful every two hours.

By Most,§ a recent writer, this article is especially recommended in what he denominates *pituitous dysentery*, and he remarks, that when the disease is protracted, the article may be administered in the following form for several days in succession, with great advantage:

℞ Nuc. Vomic.	3 i.
Infunde in aqua ferv.	qs.
Digere per ½ hor. ut reman.	ʒ vi.
Col. adde Tinct. Opii Simp.	3 ss.

M. S. A table-spoonful every two hours.

We find the following very flattering account of the efficacy

* Journal der Praktisch. Heilkunde. Bde. i. stucke 1.

† Summa. Observat. Med. tom. iii.

‡ Die Specielle Therapie. p. 133, Bde. ii. Berlin, 1821.

§ Encyklopädie der gesammten medicinischen und chirurgischen Praxis. Thiel ii. p. 317. Leipzig, 1833.

of nux vomica in dysentery, in Armstrong's lectures,* recently published. "A friend of mine, Mr. George Vaux, of Ipswich, has tried a remedy for sixteen years, in about two hundred cases, (*i. e. in dysentery,*) and the result has been so successful, and so remarkably uniform, that I feel it my duty to mention the treatment here. This gentleman gives in dysentery, or inflammation of the mucous membrane about the colon, seven grains of nux vomica thrice daily. It neither purges or constipates, but removes the inflammation, and healthy evacuations follow. Mr. Vaux, who resides in London, bears similar testimony to the value of the remedy, and I strongly recommend it to your notice. I shall certainly try it in the next case I meet with. It seems to operate as a sort of specific."

By Frisch, a German physician of celebrity, the remedy is highly recommended. He remarks, that in those forms of diarrhœa, dependent upon a subacute inflammation of the mucous membrane of the intestines, which are attended with frequent discharges of tenacious mucus, and much griping and tenesmus, no remedy is so effectual as nux vomica.† Its efficacy in diarrhœa has also been testified by others. In a case of chronic diarrhœa, in an individual of a nervous temperament, professor Récamier administered the alcoholic extract of nux vomica, in doses of one eighth of a grain, with complete success, after various remedies had been resorted to ineffectually.‡

From these remarks it will be seen, that the remedy is at least deserving further trials. To expect it to perform the part of a specific would be an absurdity, nor would it be reasonable to expect much from it in the acute stage of dysentery. But after suitable depletion, and especially, when the disease is verging upon a chronic form, we doubt not it will be found useful. Our own experience with it, as yet, has been limited; but we propose to give it a fair trial, and in the mean time, as truth is our only object, we shall be glad if these observations should serve to induce some of our professional brethren to test its efficacy. Should any of them do so, we should be pleased to receive the results of their experience.

* Lectures on the Morbid Anatomy, nature and treatment of acute and chronic diseases, &c. By the late John Armstrong, M.D. &c. Edited by Joseph Rix, M.D. p. 409. Lond. 1834.

† Thompson's Materia Medica and Therapeutics, vol. 1.

‡ Richard, Elemens d'Histoire Naturelle Medicale. tome ii. p. 148.

SELECTED PAPERS.

A Lecture by Wm. Stokes, M.D. *delivered at the Medical School, Park street, Dublin.—Session* 1833–4.

PAINTERS' COLIC.

(Concluded from page 54.)

In the third case, the patient had fits of an epileptic character, in one of which he expired. The colon exhibited a slight degree of redness, but quite insufficient to explain the symptoms during life. In the fourth, the cause of death was the same, and, on dissection the tube was found healthy. Another patient, after recovering from the symptoms of painters' colic, got a sudden attack of asphyxia and died. His body was examined, but there was no trace of disease in the colon or any other part of the intestinal canal. Here we have five cases in which there was either no disease at all in the digestive tube, or, if there was any, the amount was quite insufficient to account for the symptoms. Louis, in a memoir which he has published, on sudden and unexpected deaths, gives a case of this disease where death occurred suddenly on the eighth day. The intestines were found to be in a healthy condition. Martinet gives two cases of persons who died of the cerebral symptoms while laboring under this disease; here, also, the tube was in the normal state. Thus we have eight cases, with dissections, detailed by various authors, all men of high professional celebrity, having no theory to support, and all agreeing in the statement, that there is little or no appreciable lesion of the digestive tube; that in the majority of cases it is in a state of health; that no contraction exists; and that such morbid appearances as have been found must be looked on as accidental.

There is one interesting circumstance in these cases which deserves to be noticed. With the exception of the first and fifth cases, all the patients presented that form of the disease in which the functions of the brain are decidedly injured. Here it seems probable that the cause of death was excessive irritation of the nervous system. Now, in the observations I made on the cases, which were treated at the Meath Hospital, you will recollect, I stated, that where the cerebral symptoms were predominant, the abdominal were more or less indistinct and latent, and that the cause of indistinctness, or even total absence, of these might be owing to the force of the disease being thrown upon the brain and

spinal cord. Such was the case in the instances above recited, and such we have also seen to be the result in the case of those animals of an inferior order, that have been exposed to the poison of lead. How far the predominance of cerebral excitement may explain the want of appearances of disease in the digestive tube may be a subject of consideration.

What is the state of science with respect to the brain and spinal marrow? Allow me here to call to your recollection the symptoms of functional derangement of the nervous centres, the coma, the violent convulsions, the amaurosis, the deafness, the delirium, the paralysis. All these are violent symptoms, and you would naturally expect to find them connected with some sensible alteration, some congestion, or inflammation, or ramollissement. But nothing of this kind can be discovered. In all the cases, where death occurred under such circumstances, at La Charité, with the exception of some slight appearances of cerebral lesion in the second, there was no perceptible disease in the brain or spinal cord. The membranes and substance of the brain presented their normal condition; there was little or no fluid in the ventricles; the spinal cord was healthy and natural in consistence and color, and there was no effusion into its sheath. All these circumstances led to the conclusion that painters' colic is essentially a neurosis. Observe, too, how interesting it is to connect the circumstance of the absence of organic change, with the singular fact which I mentioned in my last lecture, that the comatose symptoms of this affection may be treated with stimulants and opiates. Where we have coma with congestion of the brain, opium has the effect of increasing the symptoms; here it was found to have a contrary effect. So that our experience and the results of pathological anatomy, as far as they go, appear to square exactly. We see, then, that painters' colic is not inflammation of the intestines, or of the brain, or of the spinal cord, and this information, though of a negative character, possesses considerable value in a practical point of view. I do not know any case of what have been termed neuroses, in which the bearings of pathological research on practice are so extensive and so satisfactory.

It is a fortunate circumstance that this disease is seldom fatal, and it is some consolation to think that, although the patient's sufferings are dreadful and often protracted, there is little danger of life, and that the complaint is almost always amenable to judicious treatment. I have been for some years in the habit of treating it in a routine way, and can speak from experience of its success,—of course this treatment is to be modified by circumstances. Suppose a patient applies to you with violent pain about the navel, a hard and retracted state of the abdomen, obstinate costiveness, and the other symptoms which characterize an attack of painters' colic; the first thing I would advise you to do is to prescribe a full opiate. Many persons would object to this, and say that there is constipation enough already, and that opening the bowels would be much

more likely to give relief. But opium does not here add to the constipation; indeed, so far from doing this, it sometimes acts as a laxative. At all events, it is a remedy which is perfectly unobjectionable. Give, then, in the first place, a full opiate, it will have the effect of relieving the patient's sufferings, and will enable you to gain time for the employment of other means. The next thing is to place the patient in a hip-bath, and keep him in it as long as possible. Do not neglect this, for I know of nothing that gives more decided relief. I have often seen cases where the patient was quite easy while he remained in the bath, but experienced a return of the pain as soon as he left it. If you have no means of procuring a bath in this way; the next best thing is to have recourse to emollient stupes containing some narcotic, after the manner first introduced by my colleague, Dr. Graves. One of the best of this kind, is the tobacco stupe, if you cannot get this you may employ poppy heads for the same purpose. The tobacco stupe is much better than the tobacco injection, because its effect can be more easily regulated, but in violent cases I am in the habit of combining both, employing the stupe during the paroxysms of pain, and throwing up a tobacco enema every four or six hours, until a decided impression has been made on the symptoms. In the success which has attended my distinguished friend Dr. O'Beirne's treatment of tetanus by the use of tobacco, we see an analogous effect. In this way you will succeed in giving relief; you should also prescribe a brisk cathartic, and this you may do without any fear of injuring the patient, or exciting intestinal inflammation. The insensibility of the intestines to the stimulus of even powerful purgatives is a curious feature in this disease, and bears strongly against the idea of its being connected with any inflammatory condition of the tube. In the Hospital La Charité, the treatment is routine; it consists of an emeto-purgative plan, which is continued day after day until the symptoms yield. The purgative we employ in the Meath Hospital, is croton oil combined with castor oil and mucilage, or given in the form of pill. When the bowels have been freely acted on, the case generally goes on well. After the bowels have been opened, we continue the employment of the hip-bath, the narcotic stupes, and anodyne injections, taking care at the same time to persevere in the use of purgatives.

Andral makes a good remark on this point. "Here," says he, "are cases in which, from some peculiar alteration in the state of innervation, the mucous surface of the bowels is rendered less sensible than in its ordinary condition, and can bear freely the stimulus of powerful purgatives. May not this condition also occur in other states of the economy? We are, therefore, led to conclude that purgatives are not, in all cases direct stimulants."

Painters' colic has been treated in Paris by bleeding and leeching, but this has not been found so successful as the ordinary purgative plan. I

have never seen a case in which general bleeding seemed to be called for except one, and this was a most violent case which had resisted the ordinary means of treatment for forty-eight hours. I recommended bleeding from its well known anti-spasmodic power; a quantity of blood was taken, and soon after the purgatives began to act, and the patient got relief. With respect to leeches, I have employed them only in those cases which are accompanied with symptoms of fever and gastric irritation; where there is quick pulse, hot skin, foul tongue, thirst, vomiting, and epigastric tenderness. In such cases I have applied leeches, but my experience of them is, that the relief afforded is by no means so great, or so decided, as in cases of intestinal inflammation, and it is a mode of treatment which I do not by any means rely upon for removing the disease.

After the violent symptoms have been subdued, the next thing you have to consider is, whether there is any paralytic affection, and how this is to be treated. If the disease be severe, or of considerable duration, you may look for paralysis of one or both of the upper extremities with a good deal of certainty. This part of the subject, I believe, more properly belongs to the consideration of nervous affections, but, as I have gone so far into the treatment of painters' colic, I may as well give the whole together. The paralysis which follows this disease is different from that which is the result of apoplexy; it is a neurosis of the passive kind, and to be treated as such. The patient, sometime after the occurrence of the usual symptoms of colic from lead, begins to complain of weakness in his arm; he feels some difficulty in extending his fingers or raising his hand to his head, and then the symptoms become more marked. The arm and fore-arm become rapidly atrophied; the paralysis principally affects the extensors, while the flexors retain a considerable share of power; the fingers are bent, and the arm hangs by the side. Here the first thing you should do is to adopt the treatment recommended by Dr. Pemberton in his work on Abdominal Diseases, namely, to apply a splint to the inside of the fore-arm and hand, so as to counteract the preponderating influence of the flexors. Apply a splint to the fore-arm, wrap it up in flannel, and make the patient keep it supported by a sling. In this way you establish a kind of balance between the antagonist muscles, and place the extensors under favorable circumstances for bringing about a cure. If the patient has both arms affected, which is sometimes the case, change the splint from one arm to the other every second day, and continue this alternation until the cure is completed.

You will next have recourse to the use of strychnine, one of the best remedies we possess in cases where the paralysis does not depend upon organic disease of the brain. This is a remedy which is given with good effects, even in cases of paralysis from apoplexy, *where there is*

reason to suppose that absorption of the clot has taken place. In a case of apoplexy, it can be employed only after some time and where depletive measures have been sedulously put in force, but in a paralysis of this description you may begin with it at once. Commence with the exhibition of one-twelfth of a grain of strychnine two or three times a day, and go on increasing the dose gradually, until a grain, or even a grain and a half is taken in the twenty-four hours. To ensure the exact division of this powerful drug, you should direct a grain of it to be dissolved in a few drops of alcohol, and then made into pills of an equal size with crumb of bread or conserve of roses. In this way you will succeed in bringing back the lost power of the muscles of the fore-arms, and restoring its nutritive functions. I may mention here, that the atrophy of the paralyzed limb, which occurs in this disease, cannot be accounted for by supposing that it is produced by want of exercise; the emaciation is so rapid (sometimes taking place in ten days or a fortnight) that we can only attribute it to some unknown lesion of innervation.

If the use of strychnine be followed by severe muscular twitches, pain in the head, or convulsions, you must omit it for some time, and then, when these effects have completely subsided, it may be resumed if necessary. You should also bear in mind, that this remedy is one of those medicines which have been termed accumulative; that is to say, a patient may be taking it for a considerable time without any perceptible symptom, and then its effects explode suddenly, the quantity which has been accumulating in the system manifesting itself at once by symptoms of great intensity. Here you omit it immediately, and with a view of relieving the existing symptoms, prescribe a draught, composed of camphor mixture, ammonia, and opium. This has generally the effect of calming the nervous excitement, and you will seldom have any more trouble on this account. *En passant*, I would advise you, whenever you employ strychnine in private practice, to inform your patient of the occurrence of such symptoms, and tell him that there is no cause for alarm. Instead of strychnine, some of the continental practitioners are in the habit of prescribing brucine, and it is stated with considerable advantage. I have tried it in two or three cases without much apparent benefit, and I am inclined to think that it is decidedly inferior to strychnine. In France, however, it has been very largely employed, and has the reputation of being a remedy of considerable value in the treatment of paralysis. It has one advantage at least over strychnine; it can be much more easily divided and regulated, so far as respects the quantity given, as it is a much weaker preparation than strychnine, one grain of which is equivalent to six grains of brucine.

In addition to these measures, I have seen much benefit result from the application of blisters and frictions, with stimulating liniments to the spine. It is also of importance to remove the clothes in which the pa-

tients have worked; they are frequently charged, saturated with lead, and have a considerable tendency to keep up the disease. I have so often seen an attack of painters' colic reappear shortly after leaving hospital, and without any evident exposure, that I could only attribute it to the circumstance of their garments being saturated with the lead.

In the foregoing plan of treatment there is nothing new; it is, in fact, a routine practice, but it is one which is borne out by the results of pathology, and which, from long experience, I can strongly recommend. I may also remind you that the plan of treatment followed in the Hospital La Charité, which has more cases of this disease than any similar institution in Paris, is completely routine.

Other metals besides lead, as, for instance, copper, produce effects somewhat analogous. Copper is said to produce salivation, colic, and vomiting. Brass-founders are liable to these symptoms, as also other persons employed in the manufacture of copper. I have not seen the disease, but it is said to be analogous to lead-poisoning, so far as colic is concerned; in other respects the symptoms differ. The convulsions are not so violent, nor is the paralysis nor coma so frequent; there is often considerable fever, thirst, difficulty of respiration, præcordial anxiety, diarrhœa, and prostration of strength, so that it comes much nearer to ordinary intestinal inflammation with fever, than painters' colic. Yet it is a curious fact, that, notwithstanding all this array of symptoms so closely bordering on inflammation, it has been found in Paris, where several cases of this disease have been seen, that it is amenable to the same treatment as painters' colic, and that, under the use of purgatives, the fever, thirst, diarrhœa, and tenesmus subside.

Mercury, under certain circumstances, will produce a most extraordinary affection, on which I shall here make a few observations. The disease is not of very frequent occurrence, but it is of importance in practice to be able to recognise and treat it properly. It is a proposition well known to almost every one, that many bad effects have resulted from the abuse of mercury: and I need not tell you how many persons are injured by the empirical employment of this potent drug on all occasions and in all constitutions. It is a common opinion that mercury acts principally on the capillary and absorbent systems, but there can be no doubt that it also acts upon the nerves, and that in a very remarkable manner. I have seen cases where the constant use of calomel has produced a marked derangement of the nervous system, manifested by great irritability, tremors, hysterical excitement, and hypochondriasis. You will see in the various works on toxicology, an account of the effects produced by mercury on persons employed in quicksilver mines, and on tradesmen, such as looking-glass manufacturers and others who come in contact with mercury. I shall read for you the notes of a remarkable case of this kind, which was some time back under treatment in the

Meath Hospital. It may be called a form of the paralysis agitans from the effects of mercury. Similar cases have been described.

A man, aged forty-six, was admitted into one of our medical wards in October, 1833.

He stated that, from the time he was eight years of age, he had been employed in a looking-glass manufactory, and that his occupation principally consisted in what is technically termed the silvering of mirrors. In this process the operator's right hand is repeatedly immersed in a vessel filled with mercury, while the left fixes a sheet of tin-foil, on which the metal is rubbed. Artisans while thus engaged are in the habit of using a muffle, which covers the mouth and nostrils. This the patient said he had never used, because he found that those who were in the habit of wearing it did not enjoy better health. For thirty years he continued to enjoy tolerable health, with the exception of some bleeding from the gums, with shooting pains and a sense of formication in various parts of the body, accompanied by a slight loss of power in the hands, which came on at various times, and was generally relieved by the use of ardent spirits. He had been frequently salivated, and when admitted had lost nearly all his teeth. The mode in which he lost them was this; gum-boils formed close to the roots of the teeth, which soon after dropped out, and in this way the local inflammation subsided. About three years ago, he had an attack similar to that for which he had been admitted; he went into the hospital and was put under an active antiphlogistic treatment with relief. From that time up to the period of his admission, he had enjoyed tolerable health, except that the sight of the right eye was considerably impaired, and that his memory was slightly affected. He forgot the names of persons and places, and was frequently at a loss in endeavoring to recollect the persons to whom he had lent his tools. On being brought into the hospital, he presented an extraordinary specimen of human suffering, and I was at first unable to give his complaint a name, the case being the first of the kind I had seen. It exhibited the phenomena of a violent spasmodic affection: it was different from tetanus, or hydrophobia, or hysteria, but it bore some faint analogy to chorea. The head, arms, and fingers, particularly on the left side, presented a succession of quick, convulsive, jerking motions. The angles of the mouth were retracted; the eyebrows twitching; the head constantly thrown back, but the agitation scarcely raised the arms. The nostrils were spasmodically dilated. The sterno-mastoid, trapezius, scaleni, diaphragm, and the abdominal muscles were similarly affected. Their contractions were short, rapid, and painful. From the constant hiccup with which the spasms of the diaphragm were attended, and the jerking motions of the tongue, his speech was interrupted and indistinct. He was occasionally free from spasms altogether, but whenever he transmitted volition to any part of the muscular system, it became instantly

affected. When he endeavored to raise his foot from the ground, it quivered and fell quite powerless and useless. Whenever he attempted to carry a vessel to his lips, he generally overshot the mark, carrying the vessel towards his ear, nose, or forehead, and spilling its contents over his face or neck, so that it was a common saying among the patients in the ward, that he did not know the way to his mouth. But if a vessel was applied to his lips by another person he could swallow easily. A sudden blast of cold air, the application of a cold hand to the skin, or the abrupt entrance of any person into the wards brought on an attack of spasms. The muscles of the left hand and of the left side were affected much more than those of the right. The mental powers were not impaired; the patient was intelligent and seemed anxious to communicate the particulars of his case. During the whole course of his disease he retained a full power over the urinary discharge and defecation. There was some slight tenderness on pressure over the fourth and fifth dorsal vertebræ, but the rest of the spine exhibited no increase of sensibility. His skin was cool and dry; his pulse quick, weak, and small; his bowels inclined to be costive, but easily moved by laxatives. Here we see a marked difference between this affection and painters' colic.

The treatment adopted in this case was very simple. Leeches were applied to the tender part of the spine; the patient was placed in a warm bath, and got some laxative medicine, followed by an opiate. He was also ordered to have a large flannel shirt, and to be placed in a warm comfortable bed. He passed the night tolerably well, and next day appeared to be much improved. I shall not continue the daily reports of this case, but shall merely mention, that after a few days a great improvement took place. The spasms of the left side continued, though much less severe. Those of the purely voluntary muscles on the right ceased, while the spasms continued in the respiratory muscles on this side. We found that all the muscles of the face which have been called respiratory by Sir C. Bell, the platysma, scaleni, pectoral, and intercostal muscles, and the diaphragm were thrown into violent spasms, while the purely voluntary muscles remained in a state of perfect quiescence. I am not aware that this circumstance has been observed in any other case. As far as it goes, it tends to corroborate the views of Sir C. Bell. In the treatment of this case we employed narcotic frictions, particularly those composed of the extract of belladonna, to the spine with considerable benefit. The patient was cured by very simple means, and at little expense to his constitution.

[*From the Lond. Med. and Sur. Jour. for April and May*, 1834.

REVIEWS.

Admonere voluimus, non mordere.——
Sunt bona; sunt qædam mediocria, sunt mala plura.

Das Quecksilber,—ein Pharmakologisch—Therapeutischer Versuch, von Dr. Ludwig Wilhelm Sachs, ordentlichen Professor der Praktischen Medizin an der Universität Königsberg, Director des Medizinischen Poliklinikums, u. S. W. p.p. viii. 368. Königsberg, 1834.

An Essay on the Pharmacological and Therapeutical Properties of Mercury. By Ludwig Wilhelm Sachs, M.D. Professor of Practical Medicine in the University of Konigsberg, &c.

We have here a monagraph on a most interesting subject. To the practical physician, mercury in its various forms, is an invaluable agent, and like antimony, opium, and Peruvian bark, may be truly regarded as one of the most important means we possess, when properly directed, of mitigating human suffering. Still, with all that can be said in its favor, it may become a source of irreparable mischief. Possessed of powers which are exceedingly active; admitting perhaps of a wider range of application than any other single remedy, and being at the same time more diffused and permanent in its effects than most of our remedial measures, no one of them requires in its administration so much judgment and discrimination,—so intimate a knowledge of the properties and powers of the preparation employed, and of the condition of the organization, and so clear and accurate a conception of the indications to be fulfilled. To resort to the employment of an agent endowed with such powers, with no better guide than a blind empiricism, amounts to criminality, and he who contents himself with pursuing such a homicidal routine, wantonly jeopards human life, and abuses one of the most precious resources of the art. That there are such, we apprehend there are too many facts to justify a doubt, and accordingly, while the value of mercury as a remedial agent is admitted by all, the mischievous consequences which daily arise under its misguided administration, are well calculated to excite prejudices against it, and to prevent its use under circumstances, where it might be capable of rendering inestimable benefit. Mischief thus inflicted, and prejudices thus engendered, render it peculiarly desirable, that its properties should be so carefully investigated, and the conditions to which it is applicable so well defined, that a well established set of principles may be thus developed, by which its administration may

be safely and advantageously directed. This important and difficult task, Professor Sachs has attempted to perform, and we shall endeavour to present a kind of summary of his labors.

The work before us consists of two parts. The first is devoted to the pharmaceutical history of mercury and its principal preparations, and was drawn up, as we are informed by the author, by his friend and collaborator, Dulk. The second, comprising the greater part of the work, is taken up with the consideration of the therapeutical properties of the article, and its application to the different forms of disease, in the treatment of which it is admissable. Our remarks will be restricted to the second part of the work.

Mercury, in its crude metallic state, is incapable of producing any other action on the living organism, than that which results from its mechanical agency. To enable it to do so, it must be previously brought into a state of combination with some other body capable of acidulating or oxidating its base, and thus converting it into a compound, possessing more or less solubility. Even the *emplast. Hydrarg.* and the *unguent. cinereum*, though active agents, mostly acquire their activity by the mercury being converted into a soluble salt, by uniting with the acids thrown off with the cutaneous transpiration. The metal is for the most part merely in a minute state of division,—a condition which does not render it capable of producing any dynamic effect, but which nevertheless facilitates its conversion into a soluble salt, when applied to the skin, because it favors its union with the free acids eliminated by the process of exhalation. Dr. Sachs very properly remarks, in support of this axiom, that as the epidermis is incapable of transmitting the metallic mercury, the article can produce no effect while it retains that character, since the part to which it is applied being unorganized, is not endowed with any susceptibility upon which an impression can be made; consequently the remedy is only capable of being absorbed, after it has been rendered soluble by combining with the free acids thrown off by the skin. Having acquired this property, it readily traverses the epidermis by imbibition or *endosmose*, and thus reaches the susceptible structures situated beneath that pellicle.

Previously to considering the therapeutical application of mercury, it will be useful to ascertain what effects it produces on the animal economy. These differ, according to the dose in which it is administered, the length of time it is continued, and the state of the system and other circumstances under which it is employed.

When prescribed in small doses, and continued for some time, its immediate effects are, more or less stimulation of all the mucous surfaces, as the respiratory, the digestive, and the genito-urinary, and soon after, a similar modification of all the dermoid and glandular apparatus. The secretions are generally increased, especially those of the mucous mem-

brane of the alimentary canal, the liver and skin. There is likewise augmented exhalation. The properties of both the secreted and exhaled fluids are considerably modified: the mucous is rendered more viscid; the urine becomes turbid; the dejections from the bowels are thinner, and of a darker or greener hue than is common: the cutaneous transpiration becomes clammy, and frequently imparts an unpleasant sensation, and the epidermis is more or less shrivelled. To these symptoms, are superadded others, which denote more or less gastric disturbance. There is an unpleasant taste in the mouth; the breath is offensive; the tongue is furred; the appetite is impaired to such a degree, in some cases, as to occasion a complete disgust for all food, and the pulse is excited. Should the medicine be discontinued under these circumstances, the nutritive actions are in a few days restored to their former integrity, and in some cases, are even more perfectly executed than before the administration of the article.

Besides these, there is a secondary train of effects developed by the operation of mercury. Should it be administered where there is hypertrophy of an organ, induration and enlargement of the glandular structures, morbid deposites or exudations in any of the splanchnic cavities, or in the parenchyma of the organs, or in fine, where there is a preternatural viscidity of the fluids, these pathological states will often experience a rapid amelioration, and finally disappear. These effects have been generally attributed to the development of an increased activity of the absorbent vessels by the mercury; but Professor Sachs objects to this explanation as unsatisfactory.

The third series of effects, or modifications, produced by small doses of mercury, constitute what the author denominates the *cachectic state.* It is characterized by a defective and depraved state of the blood, general feebleness, loss of muscular energy, relaxation of the general habit, great paleness of the countenance, a dingy aspect of the whole skin, perversion of the secretions and excretions, cachocymia, loss of appetite, and impaired digestion. There is great weakness and irritability of both sensitive and motor nerves,—so much so, that the individual is preternaturally excitable, and is affected by slight causes, while the enfeebled voluntary muscles are in a constant state of uncontrollable tremor. The pulse is preternaturally excited, frequent, small and tense; the individual is light headed; the skin is dry, and there is much thirst, together with a sense of heat, and dryness in the mouth, (*mercurial fever.*) The respiration is hurried; the parotids tumefied; the neck distended; the gums are intensely red, swollen, and separated from the teeth, so that the latter seem to be elongated, and are loose in their sockets, and a profuse discharge of saliva takes place from the salivary glands. With this condition of the glands of the mouth, there is probably a similar modification of the acts of the pancreas, as this seems to be indicated by the extreme offensiveness of

the dejections by stool. At this juncture, sometimes earlier, the individual experiences violent pains of the bones and joints, (*dolores osteocopi,*) and his sufferings are extreme, inasmuch as, besides the extreme debility and emaciation, the inflamed and ulcerated condition of the mouth, and the swollen state of the tongue and fauces, render speaking, swallowing, and even respiration exceedingly difficult and painful. The assemblage of these phenomena constitutes what is called the mercurial disease, (*hydrargyrosis,*) which is frequently accompanied with a scorbutic condition, marked by softening and swelling of the bones, (*Tophi,*) hemoptysis, &c.

It should be remarked, that in many cases, where the greater part of these phenomena are absent, mercury gives rise to ulcerations within the mouth, especially in the gums, cheeks and palate, and upon the surface of the body, which bear a striking resemblance to those of a syphilitic character, from which they cannot at first be easily distinguished; but by watching their progress, it will be found, that the mercurial ulcer spreads with greater rapidity than that which depends upon the venereal virus. They pour out a thin, dirty, acrid ichor, which corrodes the surrounding parts and involves them in the same morbid process. Like the venereal ulcers, moreover, they are exceedingly protracted, and sometimes continue for years, resisting with extreme obstinacy all treatment directed for their removal. The mercurial disease and syphilis may indeed become so intimately blended or associated with each other, as to render it impossible to discriminate between the phenomena to which they give origin.

It is worthy of observation that mercury is capable of giving rise to the same train of phenomena in the healthy, as in the diseased state of the constitution. Hence artizans who are constantly exposed to its influence, as for example, smelters, gilders, looking-glass makers, &c. are frequently affected with all the distressing phenomena of the mercurial disease. But in both health and disease, the development of the peculiar effects of the article is influenced by the condition of the organization; always taking place with the greatest facility where the nutritive powers are feeble, and with more difficulty where they are strong. Hence the ability of children to bear it better than adults.

As far back as the sixteenth century, mercury was administered in large doses for the cure of the venereal disease, not exactly from the motive for which it is at present prescribed,—the idea that it is a direct specific against the virus which generates the phenomena of that formidable malady,—but under the belief, that salivation is the natural crisis of the mercurial fever, and that this disease thus brought to an issue, its termination should be regarded as the natural crisis of the syphilitic affection. Hence the article was administered in large doses. It was deemed an object of primary importance to establish a free and copious salivation with all possible despatch, and so soon as that could be effected, all that was

deemed necessary was to keep it up, until by its critical influence it should free the system of the venereal virus. A similar practice is still pursued by some distinguished individuals, probably not with precisely the same object, but certainly in too many instances, with the same mischievous results. That mercury administered in either small or large doses is capable of eradicating syphilis, no one we presume will at present deny, yet that it does so by establishing a critical fever, and effecting a resolution of that fever by a flow of saliva from the glands, is disproved by all reason and analogy. Its remedial efficacy can be secured without the development of either fever or salivation, and besides, there are many articles of the materia medica, which are capable of exciting the salivary secretion, and yet possess no power whatever in overcoming the venereal disease. Still, there are circumstances under which mercury may be administered in large doses, and even repeated, with advantage. It impresses important modifications upon the nutritive acts of the system, which, under a proper direction, are capable of contributing materially to the removal of its pathological states, and it is only when it is not properly adapted to the state of the organization, or when the dose is pushed to a dangerous extent, that it gives rise to the formidable consequences which are sometimes seen supervening during its employment. When a quantity too great for the susceptibility of the organization is given, especially when the preparation employed is one which is readily soluble in the stomach, its operation is mischievous in a high degree. It excites, according to our author, violent pain and inflammation of the stomach and intestines, which is apt to assume a gangrenous tendency, and prove rapidly fatal. Even the outward habit of the body indicates a proclivity to this state of gangrene, and the examination of the internal organs fully reveals it. The recovery of the system from the injury inflicted upon it is slow and of doubtful issue, and even after the inflammation and salivation have disappeared, there either remains a total want of power of some part, or protracted sufferings and disorganization of the viscera of the abdomen or thorax, or a general marasmus. In short, there is developed a formidable derangement of the whole nutritive apparatus, by which the functions of nutrition are disturbed or broken up, and the nervous system is thrown into either a state of anæsthesia or hyperæsthesia.

As regards the modus operandi of mercury, professor Sachs proposes as a fundamental axiom, that its direct tendency is to weaken the activity of the powers of nutrition. He therefore denies the truth of the assumption adopted by many therapeutists, that its efficacy depends upon its power of invigorating the action of the absorbent vessels, and thereby promoting absorption. The two leading acts of the nutritive apparatus are, the formation of the blood, and its conversion into the living solids,—the development of the fluid and solid elements of the organization. A

pathological state of the general process of nutrition can, therefore, only take place in one of the four following ways: 1. both conditions of nutritive life are in a state of exalted activity: 2. they are both in an enfeebled condition: 3. the two acts, viz. the formation of the blood and its conversion into the organic solids, are in a state of disharmony with each other, so that one of these functions is performed at the expense of the other. This pathological condition is always dependent, directly or remotely, upon some disturbance of the nervous influence. 4th and last, they are both deranged or perverted by some peculiar morbid quality of the powers by which they are accomplished, so that the pathological states either absolutely, or at least in their species, are not dependent upon the quantity, but the quality of the nutritive energies. According to these principles there are four families or subdivisions of the diseases appertaining to the system of vegetative or nutritive life. Inflammation, with its generic and specific modifications; Atony; a want of harmony between the two fundamental acts of nutrition, which however, either by cause or effect, are intimately associated with each other; and proper nervous diseases.

Upon these propositions, which he regards as well founded, the author predicates the therapeutical application of mercury, and thinks that all the phenomena presented by its operation on the animal economy, must be explained upon principles deducible from these fundamental laws of general pathology. With these views, therefore, after detailing several arguments against some of the leading opinions which have been inculcated relative to the action of mercury, he goes on to speak of its special application in the treatment of disease.

In the prosecution of this portion of his task, he adheres throughout, to the law already laid down;—*that the natural tendency of mercury is to depress directly, or undermine, the whole of the powers of vegetative or nutritive life.*

The first topic treated under this head, is *inflammation.* This process or condition is divided into the three following varieties, according to the parts affected: the *sensible*, the *irritable*, and the *vegetative.* The author defines it a condition in which there is reaction, either absolute or relative, of all the organic systems, with increased energy.

At the outset of his observations, professor Sachs asks the question,—should mercury be considered a direct *antiphlogistic*, and to what extent? A decision must, he thinks, be given in the negative, when inflammation is considered in strict relation with the two fundamental systems,—the sensitive and the irritable, because, as before remarked, mercury has in its modus operandi no direct relationshisp with either. But if it be borne in mind, that the process of nutrition can only be considered as a result of the combined action of the two fundamental organic systems, and especially, that inflammation, so far as it consists of a state of reaction, with

exalted energy, must likewise, in all cases, disturb more or less the acts of nutrition, it will appear plausible to infer, that although mercury may not be properly an antiphlogistic, there is nevertheless a period in the progress of the inflammation, in which it may be advantageously employed, as a means capable of producing a good effect.

(To be continued.)

Library of the Medical Sciences. The American Cyclopædia of Practical Medicine and Surgery; a digest of Medical Literature. Edited by Isaac Hays, M.D. Surgeon to Wills' Hospital; Physician to the Philadelphia Orphan Asylum; Member of the American Philosophical Society, &c. &c. vol. i. p.p. 560. Philadelphia, 1834.

Since the publication of the large French *Dictionnaire des Sciences Médicales*, and the valuable though diffuse information contained in it, an impulse has been given to the adoption of this form of conveying scientific knowledge in preference to others, and the success which attended the *exploitation* in the hands of Pancoucke has induced other bibliopolists to follow in his wake. To this we owe the two editions of the excellent *Dictionnaire de Médecine*—the *Dictionnaire de Médecine et de Chirurgie pratiques*—the *Dictionnaire abrégée des Sciences Médicales*—the *Enclopædisches Wörterbuch der Medicinischen Wissenschaften;* and the *Encyclopædia der gesammten Medicinischen und Chirurgischen Praxis*, of Most; the London *Cyclopædia of Practical Medicine*, and the *Dictionary of Copland;* besides the American Cyclopædia, and numerous small dictionaries on detached portions of Medical and Chirurgical Science.

Satisfied of the value of this mode of communicating knowledge—the easiest of reference, and the most complete in its details, in consequence of the monographs being assigned to different scientific individuals—the able editor, Dr. Hays, engaged in the work, whose title is at the head of this article; and aided by the liberality, characteristic of the enterprising publishers, he has succeeded in placing it before the public in a form, which may enable it to vie with any similar undertaking in any country.

When the Cyclopædia first made its appearance the times were unpropitious. The whole country was suffering under pecuniary embarrassments, which occupied the minds of all classes, so as to largely diminish the number of readers, and consequently to prevent the sale of books to a degree, perhaps unprecedented. But now that commerce is reviving, and confidence re-established; that the minds of men can be diverted from their pecuniary concerns, and be directed to objects of cultivation, the arts and the sciences will again receive their due attention, and amongst the products of the latter none will merit a more

marked attention than the "*American Cyclopædia of Practical Medicine and Surgery.*" Already it has received the most favorable notice from different foreign reviewers, as well as in our own periodicals; and abroad it is admitted to be in no wise inferior to their best productions of the kind; whilst it must necessarily rank above the English Cyclopædia, in consequence of the wider extent it embraces, if not for the superiority of the individual contributions—which we, however, unhesitatingly award to it.

When the Cyclopædia was first undertaken, it was announced that a part would be published every month, if practicable. This, partly for reasons already stated, has not been found feasible: the average has not, indeed, been more than one in three months, so that if it were to extend to forty parts, as was, and is contemplated—although we suspect it will largely exceed this number—it would take ten years from the appearance of the first part to complete it. This tardy issuing of the numbers has, we know, alarmed many, and deterred them from subscribing,—the older practitioners, especially, being fearful that a period to their existence might arrive before a term was put to the publication; and we feel convinced, that unless the work proceeds more rapidly and regularly, many, who are already on the list of subscribers, will withdraw their names. The inconveniences produced by the delay are, however, sensibly felt by the editor, and will, we are sure, so far as rests with him and the publishers, be obviated in future. In his advertisement, affixed to Part 5th, he remarks:

"The publication of the Nos. of this work has been retarded much beyond the periods assigned for their appearance, in consequence of *some* of the contributors not furnishing their articles in time. This delay has been a source of extreme regret and mortification to the editor; and to obviate it every effort has been made, though in vain. The active exercise of the profession is little favorable to literary labor and to the extensive research which the preparation of the articles of the Cyclopædia demands, and yet it is evident that only to those engaged in extensive practice could the composition of many of the articles be entrusted. That the same delays will not occur hereafter, there appear reasonable grounds to believe. It is confessedly at the commencement of all enterprises that the greatest difficulties are to be encountered; and as those engaged in the work have been uninterruptedly proceeding in their labours, a considerable mass of materials have now accumulated in the hands of the editor. Nearly all the articles in letter A are actually written, or in a state of great advancement. Wood cuts of all the arteries are also in preparation, for the article on the anatomy of those vessels, and it is proposed, should the patronage afforded by the profession justify the enterprise, to give wood cuts illustrative of the whole anatomy of the body, of the progress of labour, of the instruments employed in surgery and midwifery, &c. and to proceed with the work with increased activity."

The first volume being now completed, the editor refers to it to decide how far his promise, held forth in the prospectus—that the work should present "a digest of the existing state of knowledge in all the branches of the healing art"—has been fulfilled. Any one, we think, who will carefully and unprejudicedly peruse it, or even glance over the articles, must at once decide in the affirmative. The best foreign authorities have been explored by the contributors, whilst much original matter, relating to individual observation and reflection, enriches the pages. "As to the amount it contains of new matter relative to American medical and surgical practice," says Dr. Hays, "it is confidently believed, that the expectations that may have been excited, will be more than realized. From the liberal and honorable manner, in which some of the most distinguished members of the profession have placed their *unpublished* observations and cases, at the disposition of the editor and his colleagues, this work presents even more of an original and American character than was provided; and this will be found to be to a still greater extent the case as the work proceeds. The article *Anus* for the succeeding number embraces many original observations of Dr. Physick, relative to the anatomy and some of the diseases of that organ, and which have been with the utmost liberality communicated by that distinguished ornament to our profession."

The following is the list of contributors to the volume with their respective contributions.

Franklin Bache, M.D. Professor of Chemistry in the Philadelphia College of Pharmacy, and Physician to the Penitentiary	*Acetates; Acetic Acid; Acids; Acupuncture; Albumen; Alcohol; Alkalies; Alum; Alumina; Amber; Ammonia; &c.*
N. Chapman, M.D., Professor of the Institutes and Practice of Physic and Clinical Practice in the University of Pennsylvania	*Angina Pectoris.*
Reynell Coates, M.D.	*Abdomen* (Surgical Pathology of;) *Adhesion.*
D. F. Condie, M.D.	*Acrodynia; Ages; Amnesia; Anasarca; Angina.*
W. P Dewees, M.D., Adjunct Professor of Midwifery in the University of Pennsylvania	*Abortion; After-Pains; Amenorrhœa.*
Gouverneur Emerson, M.D. . . .	*Achor; Acne; Affusion; Alopecia.*
R. E. Griffith, M.D. Editor of the Journal of the Philadelphia College of Pharmacy	*Abortion* (Med. Leg.); *Absorbents; Acalypha; Acclimatement; Acer; Achillea; Actæa; Adiantum; Adipocire; Æsculus; Agave; Ages* (Med. Leg.); *Agrimonia; Alcornoque; Alexipharmic; Alisma; Alpinia; Althœa; Ambergris; Amomum; Anagallis; Analeptics; Anaphrodisia; Anda; Andira; Anemone, &c.*

E. Geddings, M.D. Professor of Anatomy in the University of Maryland	*Abdomen* (Anat. of;) *Acephalus; Acervulus Cerebri; Adipose Tissue; Amputation; Anatomy; Anencephalus.*
Thomas Harris, M.D. Surgeon in the United States' Navy, and one of the Surgeons to the Pennsylvania Hospital	*Abscess.*
H. L. Hodge, M.D., one of the Physicians to the Pennsylvania Hospital.	*Aneurism.*
Wm. E. Horner, M.D., Professor of Anatomy in the University of Pennsylvania	*Ambulance; Anchylosis.*
Samuel Jackson, M.D., Assistant to the Professor of the Institutes and Practice of Medicine in the University of Pennsylvania, and one of the Physicians to the Pennsylvania Alms House Infirmary	*Absorption; Alteratives; Anemia.*
J. C. Warren, M.D., Professor of Anatomy and Surgery in Harvard University, Boston, ...	*Air*, its action when admitted into the veins.
George B. Wood, Professor of Mat. Med. and Pharmacy in the Philadelphia College of Pharmacy .	*Abies; Acacia; Aconite; Aconitum; Acorus; Agathosma; Aletris; Alkanet; Allium; Almonds; Alnus; Aloe; Aloes; Ammonia; Ammoniac; Amygdalus; Amyris; Anacardium; Anchusa; Anethum; Angelica.*
Isaac Hays, M.D., one of the Surgeons to Wills' Hospital, &c. .	*Abdomen* (Physiology, Symptomatology and Pathology of;) *Abstinence; Action; Adynamia; Ægilops; Agony; Air* (action upon the tissues of;) *Albino; Aleze; Amaurosis; Anchylops; Anchyloblepharon; Angeial; &c. &c.*

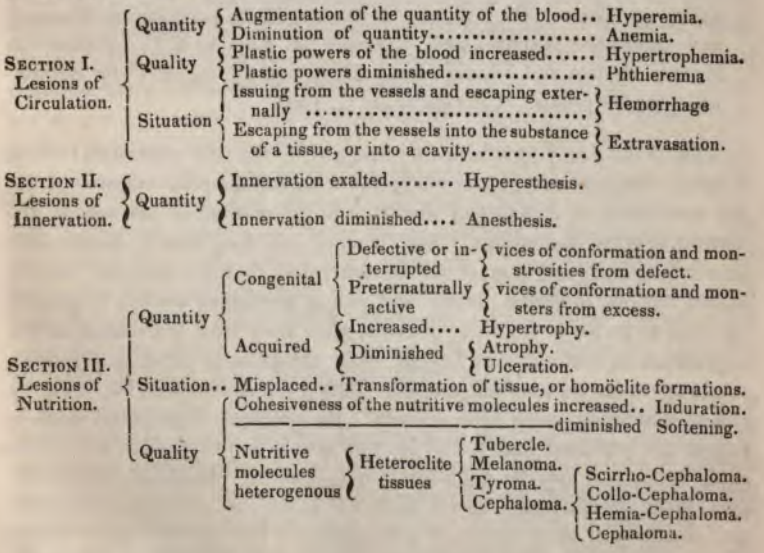
All the individuals in this list are well known for the ability and zeal, which they have exerted in the cause of medical science.

Of the particular articles it is impossible for us to speak except in the abstract. They are extremely creditable to the respective writers, and exhibit the judicious selection made by the editor, so far as regards fitness, whatever may be the objection to some of the contributors on the score of want of punctuality in furnishing their contributions. "*Bis dat qui cito dat*," is a maxim which every contributor to such an undertaking, and every editor, should make his own. Hope deferred proverbially sickeneth the heart, and when the object is attained, it is not grasped as fervently as if it had been presented earlier, and when the mind was attuned to a more propitious reception. The mental, as well as the corporeal appetite, loses its edge by postponement, and when the delayed repast is ready, we cannot forget the feelings of privation and annoyance, experienced during the period of protracted anticipation. This is an

additional reason for the more rapid and regular publication of the work in future.

An undertaking, thus well commenced, ought to *command* the patronage necessary for its full success. It would be strange, indeed, if amongst the multitude of intelligent practitioners, and students in every part of the Union, sufficient encouragement should not be afforded to enable the work to be persevered in, and illustrated in the manner proposed in the editor's advertisement. In a science so rapidly progressive as medicine, without some such publication, the physician must find that he falls behind his scientific contemporaries; whilst the object of such a Cyclopædia is to give the "circle of learning" on the subject it embraces—the existing state of the science—and in as small a compass as is practicable.

Even the technology of the science has been so much augmented—if not enriched—of late years, that many of the modern publications—on physiology, and pathology more especially, must be wholly unintelligible to the practitioner who has ceased to be a student, (the day we trust will come when there will be none such to be met with in the ranks of the professsion,) for the short period of the last ten or fifteen years. In evidence of this, we may cite the following table of pathological lesions from the article *Pathological Anatomy*, contributed by one,—of whose abilities, and industry, his relation to this Journal precludes us from speaking, but of both of which ample evidence is furnished in the pages of the Cyclopædia.



- **Section IV. Lesions of Secretion.**
  - Quantity
    - Secretion augmented
      - Extravasation.
      - Flux.
    - Secretion diminished.
  - Quality
    - Modification of the natural secretions.
    - New secretions.
      - Organizable.
      - Not Organizable..... Pneumatoma. Hydronoma. Pyonoma. Colloma. Steoma. Alsoma. Lithoma. Melanoma. Kirronoma. Ephaloma. Chloasoma.
  - Situation
    - Formed in unusual situations.
    - Transported to unusual situations.
- **Section V. Physical Lesions**
  - Physical Lesions of texture.—Wounds.
  - Physical Lesions of situation
    - Displacements: Dislocations. Hernia. Prolapsus. Retroversion, antiversion, invagination, inversion, inflexion, &c.
    - Accidental distortions, &c.
- **Section VI. Living products having no natural connexion with the organization.**
  - Entozoa.

We repeat, that the profession ought to afford its support to a work, which the editor promises all his efforts to render "useful as a text book for the student, and as a guide to the practitioner." Δ.

A Compendium of Operative Surgery; intended for the use of students, and containing descriptions of all Surgical Operations. Illustrated with engravings. By Thomas L. Ogier, M.D. Lecturer on Anatomy and Operative Surgery, and Thomas M. Logan, M.D. Lecturer on Materia Medica and Therapeutics. No.1, p.p. 26, 4to. and four colored lithographic plates. Charleston, S. C. 1834.

This is the first part of a work, designed, as the title expresses, to form a useful compend of operative surgery, with lithographic engravings, for the instruction of students of medicine in the method of performing the various surgical operations. Such a work has long been a desideratum in our language, and it must not be concealed, that our extreme poverty in this respect, indicates plainly that young gentlemen are too frequently allowed to go forth from our schools, after they have graduated, as the expression is, without ever having taken the knife in hand, to practise a single operation on the dead subject. This is not as it should be. Surgery exacts something more than science. Its operative department requires expert and practised hands, and he who would acquit himself well in its application, and not be considered a mal-adroit blunderer, must have previously familiarized himself with the knife, and the various acts and modifications of each operative procedure, by the repeated exercise and practice of them on the dead body. To enable students to prosecute these exercises with advantage, they require some manual, giving a con-

cise and perspicuous description of the different operations. The different treatises on operative surgery are too diffuse and elaborate for this purpose, and are rather suitable to the study, or to the practitioner, than the student in the dissecting room. The small manual of Averill, and that of Coster, translated by Godman, are good in their way; but they are defective in many of the most approved modern operations, and in many places, their descriptions cannot be well understood, for want of suitable graphic delineations of the more important operations, and the instruments requisite in their execution. Malgaigne's manual, now in course of publication in this city, is much more complete in its operative details, and will be highly valuable to students; but it is also liable to the same objection;—the want of proper graphic delineations. In this latter respect, therefore, the work of Drs. Ogier and Logan, if executed in accordance with the plan proposed by them, will supply an important desideratum in our surgical literature. That it will be so executed, we feel assured, as well from our knowledge of the authors, as from the manner in which they have performed their task in the first number.

The part before us comprises the subjects of incisions, punctures, sutures, hæmostatic operations, and ligature of the temporal, facial, and lingual arteries. All these subjects are treated in a concise, but perspicuous manner, and the various acts and procedures recommended, are those which have received the approbation of the best modern surgeons. The first plate represents the different kinds of incisions, and the instruments used in practising them,—the scalpel, bistoury, and grooved directory; the second gives a view of the face, with a delineation of the several varieties of sutures usually practised, as the interrupted, continued, twisted, quilled and looped; the third, hæmostatic instruments, consisting of the tenaculum, aneurism needle, Physick's forceps and needle for securing deep seated arteries, and torsion forceps; the fourth is a lateral view of the face and neck, representing, after the manner of Manec, the methods of applying a ligature to the temporal, facial and lingual arteries. They are in general well executed, and will be found to afford very valuable aid to the student, and even the practitioner, in the performance of the several operations which they represent. We have noticed a few faults, but they are fortunately not important. The most material are in plate 2, figures 1, 2 and 3, in which the sutures are placed altogether too near the edge of the wound. Trifling defects like these can, however, be easily obviated in the future parts of the work.

It was originally proposed to complete the work in eight parts, each containing four plates; but the authors state, that they will be obliged to make each part comprise seven or eight plates. Judging from the specimen which is now before us, we feel assured, that the work will be exceedingly useful to students, and we can confidently recommend it to them, and to practitioners generally, as an excellent compilation on the subject of which it treats.

Analysis of the menstrual blood obtained from a female affected with Atresia Vaginæ, which prevented that fluid from escaping. By Moritz Samuel Heilbut, *under the direction of* L. Gmelin.

We shall not detail the various processes and tests adopted, which the name of Gmelin alone is sufficient to convince us, were in accordance with the best lights afforded by modern chemistry, but merely report the results obtained.

The following are the results afforded by a comparison of the menstrual, with the arterial and venous blood. The arterial and venous blood is red—the menstrual fluid is of a chocolate color. Like common blood it contains cruor. The specific gravity of the human blood is, according to Prout, 1.03—1.05; that of the menstrual blood, 1.011; a difference which is explained by the admixture of various materials with it. The blood, in its dry state, according to Prevost and Dumas, possesses a specific gravity of 21.61; the dry residue of the menstrual blood, 10.55. One striking difference is, that the menstrual blood, when it has been long excluded from the atmosphere, does not coagulate. The cause of this is partly the smaller quantity of fibrine; partly the admixture of a considerable quantity of the mucous secretion of the vagina and uterus, which by becoming incorporated with the fibrine, prevents it from coagulating into a solid concrement. In other respects, the menstrual blood contains the same constituents as the arterial and venous: as fibrine, albumen, cruor, osmazone, cholesterine, a substance resembling adipocere (mucous?) muriate and sulphate of potash and soda, phosphate of lime, oxide of iron, and magnesia. The potash, soda, lime, and magnesia are without doubt, in a state of combination with the muriatic, sulphuric and acetic acids. The physical properties are the same as those which pertain to the arterial and venous blood. Its fibrine is only a little thinner, and retains its color, after repeated washing with cold water—a circumstance which is probably owing to the admixture of mucus, which cannot be removed by the water.—*Hecker's Wissenschaftlichen Annalen der gesammten Heilkunde*, 1833—*from Dissert. Inaug. de Atresia Vaginæ, adjectis duobus casibus Atresiæ Vaginalis, &c. Auctore Maurit. Sam. Heilbut. Heidelbergæ*, 1832.

Spontaneous cure of Intussusceptio.—Dr. Hedinger reports the case of a woman, aged fifty-one years, who was affected with intussusceptio, and passed by stool a portion of the small intestines, forty inches in length. —*Hecker's Wissenschaftlichen Annalen der gesammten Heilkunde*, 1833.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. Professor Ehrenberg *on the structure of the brain and nerves.*—The cortical substance of the brain consists of a very fine, close, vascular network, conveying red globules, which upon its surface, becomes intimately interwoven with the vascular arrangement of the *pia mater.* Besides this fine plexus of vessels, I observed in the cortical substance, a whitish colored mass, composed of minute globules, amongst which some of larger size could be distinguished, disposed either in clusters, or in a longitudinal series. These large globules were perfectly free, but those of smaller size, wherever their extreme tenuity and delicacy admitted an accurate determination of their disposition, were found to be arranged so as to form filaments of great delicacy. In the vicinity of the medullary substance, the filamentous arrangement could be more distinctly seen, and at this point, the blood vessels were less numerous. The white or medullary substance, shewed still more distinctly a fibrous structure, continuous with the delicate filaments of the corticle portion, which coming from different portions of the superficies of the brain, were arranged into filaments or bands, and these latter disposed at first in a vertical direction as regards the convolutions, passed from thence, in a radiated direction, towards the base of the organ. They were not simple cylindrical fibres, but resembled more a string of pearls, the different pieces of which are separated from each other by slight intervals, or a tube, composed of a series of minute vesicles. They were all disposed in right lines, generally parallel with each other, but sometimes intercrossing. In a few instances I perceived one dividing into two, but no anastomosis between any of them could be discerned. Near the base of the brain, interposed between these bundles of vesicular fibres, others which were much thicker, were observed. In the latter, walls presenting distinctly an outer and inner surface were visible, from whence it is manifest that they are hollow cylinders, or tubes. These linear series of globules cannot, therefore, be with propriety either considered as fibres or filaments, but delicate tubes or canals, presenting a varicose, or articulated arrangement.

The internal part of these hollow tubes is transparent, and it may be inferred that they are occupied by water, or a watery vapour. The milk white appearance, therefore, which they present to the naked eye, is not proper to the walls of the tubes, but the fluid they contain. This white color does not exist in the cortical substance, which is composed of the points or radicles of the delicate tubes, which at this point merely have walls without the contents which exist in those of larger size. From these facts, it may be inferred, that the white color of the medullary substance of the brain is attributable to the contents of the tubes of which the organ is composed. The larger tubes of the brain converge towards its base, where the nerves take

their origin, and are continuous with their radicles.—*Hecker's Wissenschaftlichen Annalen der gesammten Heilkunde, from Puggendorff's Annalen der Physik*, 1833.

---

2. Professor Ehrenberg *on the structure of the nerves.*—The optic, auditory, and olfactory nerves, which are the most important of the nerves of sense, are shewn by microscopical observations, to be composed of the varicose tubes of the medullary substance of the brain, which are thus prolonged from that organ, without undergoing any alteration. All the other nerves, except the central portion of the sympathetic, differ essentially from the brain, inasmuch as they present its structure under an entirely different form. All of them, except those enumerated above, consist of a parallel series of tubes, of $\frac{1}{120}$ part of a line in diameter, never anastomosing with each other, but collected into small fascicles, these into larger bundles, and the bundles, in their turn, into the proper nervous cords. Each fascicle, as well as the entire nerve, is surrounded by a kind of tendinous and vascular coat;—the neuralemma and pia mater. The different fascicles form frequent connexions with each other by a species of false anastomosis, the tubes of one fascicle intermixing with those of another, without any absolute fusion taking place between the two sets. It is in this manner, the nervous plexuses are formed, which bear a close similitude to the radicles of the nerves, and in the same way, the retina is constituted. In the minute radicles of most of the nerves, where they proceed from the superficies of the brain, I have discovered, in the space between the cylindrical tubes, others of about the same size, presenting the varicose or articulated arrangement. Whether by this disposition the nerves of sensation acquire their faculty of motion, from the admixture with their articulated tubes, those of a cylindrical character, is an interesting question which requires further investigations to decide. Thus far, I have been unable to determine, whether at a greater distance from the origin of the nerve, the cylindrical tubes are still associated with those which present the varicose or articulated arrangement. In the sympathetic, however, I have been able to observe distinctly, the minute articulated tubes intermixed with larger cylindrical ones.

The simple cylindrical nervous tubes present a striking difference from the articulated tubes which compose the brain. They have a much larger cavity, and their contents are more considerable and less transparent. In the living nerve, this material seems to consist in a slightly coagulated pulp composed of small irregular particles, sometimes forming a delicate reticulated or striated mass, which can be forced out of the tubes by slight pressure. When a nerve is divided transversely, the retraction of the neuralemma forces out the nervous pulp, which is of a white color, and was very properly denominated by Treviranus, *nervous medulla.* Reil, on the contrary, with less accurate discrimination, included under the appellation of nervous pulp or medulla, not only the proper pulp, but the assemblage of small sheaths in which each fascicle of it is inclosed, merely applying the name of neuralemma to the outer covering which is common to them all.

I have with great care, followed the cylindrical tubes of the motor nerves for some distance into the substance of the brain, and convinced myself that they are directly continuous with the delicate articulated or vericose tubes

which compose that organ, which, at the point at which they make their exit from it, or the spinal marrow, lose their jointed arrangement, the articulations becoming at first larger, and finally disappear,—the tubes assuming a cylindrical form. It was with much difficulty that I was enabled to convince myself of this fact, but finally discovered that it can be easily demonstrated, inasmuch as the radicles of the nerves, exterior to the substance of the brain, shew very distinctly this transition of the tubes from the articulated, to the cylindrical form. This fact is of considerable importance, since it shews, that the tubes which compose the nerves only have their cavities occupied by the proper nervous medulla, or pulp, after they have escaped from the brain or spinal marrow, and that so long as they are confined to these organs, and retain their articulated or varicose character, they are filled by a transparent fluid, possessing nothing of the white medullary appearance. It is manifest, therefore, that the milk-white, gelatinous, substance, composed of globules, of the elementary nervous tubes, does not consist of the proper medullary substance of the brain invested by small tubular sheaths of the neuralemma, since the elementary tubes of the latter are perfectly transparent, and their cavities are occupied by a homogeneous, transparent vapor, or a viscous material, which cannot be made to flow out from them. Hence the articulated tubes which compose the brain, may be compared to an extensive capillary vascular system, while the cylindrical tubes of the nerves, represent the vascular trunks.

From these results, the question naturally suggests itself, whether this gelatinous or white medullary substance, which is found in a coagulated state within the elementary nervous tubes after death, does not, during life, consist of a proper fluid composed of globules, which circulates through them, as the blood is circulated by its vessels,—a hypothesis which was for a long time adopted, until the ingenious experiments of Alexander von Humboldt refuted it, and established Reil's theory of a nervous atmosphere. Leeuwenhoek, indeed, represents that he had been able to perceive this nervous circulation; but notwithstanding all my investigations, I have not been able to discover any thing of the kind. Nor is a circulation necessary to explain the operations of the nervous system.—*Hecker's Wissenschaftlichen Annalen der gesammten Heilkunde*, 1833.

---

3. *Globules of the human blood*—By Prof. WAGNER of Erlangen.—I have repeatedly measured the size of the globules of my own blood, and that of other persons, both male and female, and have constantly obtained the same results. They are round, but not all of the same size, as represented by many observers. Most of them I found to be $\frac{1}{350}$th part of a line in size, others somewhat larger, being nearly $\frac{1}{300}$th of a line, while many were smaller, and did not measure more than $\frac{1}{400}$th of a line, and could scarcely be distinguished. The average diameter may, therefore, be estimated at $\frac{1}{4000}$th part of an inch As regards the contradictory estimates which have been made of the size of the blood globules, it is owing in part, as remarked by Burdach, to the imperfection of the micrometers employed, and the want of accuracy in the observations. Hence, have originated such differences as those obtained by Home, who estimated the diameter at $\frac{1}{141}$th parts of a line, and those of Young, who represents it at $\frac{1}{505}$th. The results of my admeasurements correspond, for the most part, with those of Johannes Muller, and E. H. Weber. From

these observations, it may be inferred, that about 150,000 blood-globules occupy each square line.

Whether the human blood-globules are, on both surfaces, convex, or concave, or convexo-concave, is a question which it is difficult to decide. I at first supposed, that they were on both sides, uniformly convex. But by more recent observations, I have discovered, that when they repose upon the margin, it is difficult to distinguish any convex projection in the centre. The edge, indeed, resembles that of a thick piece of coin. It is represented by Young, that they are concave in the centre, and Johannes Muller remarks, that when they are examined with a good glass, the whole surface, from the edge to the centre, seems to be concave. I have observed the same appearance, especially when they were diluted with a solution of muriate of soda. Schmidt* has described them as compressed, with two plain surfaces, with a prominent rounded border. Muller observes that they are four times smaller in their flat than their broad diameter, which is probably correct; and it may hence be inferred, that in their thickness, they measure about $\frac{1}{1000}$th to $\frac{1}{1600}$th part of a line. When diluted with simple water, they swell somewhat, and shew a greater difference of volume.—*Zur Vergleichenden Physiologie des Blutes, von Rudolph Wagner,* 1833.

---

4. *The nucleus of the blood-globules, and the proper lymph globules of the blood*—By Prof. Wagner, of Erlangen. It is an old, and as yet, an unsettled question, whether the blood-globules are composed of a central nucleus, and an external incrustation or casement of coloring matter. Schmidt, influenced by the researches of his predecessors,—Hewson, Rudolphi, Prevost and Dumas, as well as by his own investigations, has advocated the belief of an internal nucleus and an investing cyst. E. H. Weber, on the other hand, has contended strongly against this hypothesis, and affirms, that the appearance of a round central nucleus in the blood-globules of man and the mammalia, and the elliptic in the plano-oval globules of birds, the amphibia, and many fishes, is owing to a refraction of the rays of light. I was long in doubt which of these opinions to adopt, but finally espoused that of Weber, without, however, reducing it to the test of experiment. J. Muller has finally demonstrated, that the elliptic blood-globules of frogs lose their external coating in water, so as to leave the colorless central nucleus, which is insoluble, divested of its investing coloring matter, which is four times smaller than the elliptic globule itself. My own experiments, especially with the blood of fishes, corroborate this opinion. It still remains a question, however, whether the blood-globules, while they circulate in the vessels, consist of this central nucleus, and external hull or covering. It at least appears, that the latter is only susceptible of being separated from the former after it has been acted upon by water, and that in its perfectly fresh state, it adheres intimately to the nucleus. J. Muller thinks it possible, that the nucleus of the elliptic blood-globules may consist of the globules of the lymph and chyle. He also supposes that the round globules, which are found in the blood of the frog's heart, are derived from the lymph-globules which have entered the circulation; and I have discovered the same round globules in the pigeon, and

* Ueber die Blutkorner—Wurzburg, 1832.

some fishes. He moreover subjoins, that the nucleus of the blood-globules of the frog, freed from their incrustation by acetic acid, are about as large as the more rare species of globules in the blood, or the globules of the lymph; but the two last are round, while those which are separated by acetic acid are elliptic, and those of the salamander are flat. In my own experiments, I have not been able to succeed with the acetic acid, but the blood-globules of fishes, treated by water, did not furnish oval, but round nuclei. Another fact which militates against the inference, that the nuclei of the blood-globules are furnished by the lymph-globules is, that those which were obtained in the manner represented, were smaller than the globules of the lymph. This objection, however, is not conclusive, since the latter may become enlarged, or before they become invested with the crust of coloring matter, may part with a portion of their substance, or what is also possible, the water in removing the latter, may at the same time take with it more or less of the substance of the nucleus, thus rendering it smaller than the oval speck or nucleus of the blood-globules, while they are surrounded by their coating. Although it is probable, that the round globules of the blood of birds, amphibia, and fishes, are derived from the lymph, the inference is not fully established. To render it valid, farther microscopical admeasurements of the lymph-globules of these animals will be necessary; since, notwithstanding the valuable experiments of Hewson, on the lymph of birds, from which it appears, that the globules of that fluid are smaller than those of the blood, yet larger than the central nuclei of the globules of the latter, the conclusions formed cannot be regarded as positive, as the fact was not reported by himself, but by Falconer. Thus far I have been unable to obtain the lymph of these animals in its pure state, on account of the difficulty of finding their lympatic vessels and glands.

Whether the blood-globules of man and the mammalia, contain a central nucleus, I have not been more successful than J. Muller in deciding, on account of their extreme minuteness. One of my experiments, however, on sheep's blood, favors such a presumption.—*Ibid.*

---

5. *Case of obliteration of the Aorto*—By A. Meckel, of Berne.—A stout, robust peasant, aged about 35 years, who had previously enjoyed good health, whilst engaged in carrying a sack of corn to market, was suddenly seized with great weakness, which rendered him unable to proceed, and he was consequently conveyed to the hospital. The prostration disappeared in the course of a few hours, but was followed by a dizziness of vision, which continued for several days. He was finally attacked with a gastric affection, accompanied with pain in the chest, loss of appetite, bilious and mucous dejections, *without there being, however, any remarkable disturbance of the pulse.* By the sixth day, his disease seemed to be entirely subdued. The patient rose from his bed, eat with a good appetite, seated himself cheerfully by the stove, and fell down dead.

As the individual was without friends, his body was appropriated to the purpose of anatomical demonstration. On laying open the thorax to inject the arteries, the pericardium was found distended with black blood, which had proceeded from a rupture of the right auricle. The walls of this cavity were slightly thickened and softened, and the rupture, and consequent extravasation of blood, were the cause of death. A further investigation displayed a

very considerable dilatation of the ascending aorta. The left carotid and left subclavian were then tied, and the pipe introduced into the innominata. As the whole of the injection which had been prepared, was thrown in without meeting with any obstacle, it was thought that the injection had failed, and the body was thrown aside and another substituted. On laying open the abdomen, however, it was ascertained, that all the vessels of that cavity were filled, and that the injection had even reached the feet. Prosecuting the examination farther, it was found, that the aorta, immediately below the arterial ligament, was obliterated, and reduced to the size of a small straw. It was discovered at the same time, that a most remarkable *rete mirabile* had been formed between the vessels which proceed from the arch, and those which are given off from the posterior part of the descending aorta. The whole of the intercostals, the internal mammary, inferior thyroid, transverse cervical, and supra-scapular, were enormously enlarged, and convoluted, so as to resemble varicose veins.—*Meckel's Archives für Anatomie und Physiologie.*

---

6. *Inveterate syphilis treated with phosphoric acid*—By Dr. Heinecken.—An individual had been affected with syphilis a year or eighteen months, and had, without success, submitted to the employment of various remedies. His disease, at this time, consisted of ulcers in the neck, exostosis of the cranium, and over one orbit, tumefaction and pain of the nose, accompanied with the discharge of an acrid bloody ichor, and pain of the antrum highmorianum. He had also a kind of herpetic exudation from nearly the whole surface of the body, and extreme pain of his bones, and eyes, at night, which rendered it almost impossible for him to move. Under these circumstances, Dr. Heinecken prescribed phosphoric acid in as large doses as the stomach could bear, together with a strong decoction of the solanum dulcamara. The continuous employment of these means, brought about a complete and permanent cure of the disease.—*Otto Bibliothek for Læger, Kiobenhavn,* 1834—*from Pierer's Allg. Med. Zeitung.*

---

7. *Dr. Tross's pectoral powder.*—The following powder is recommended as a useful soothing demulcent, for phthisical patients.

℞ Gelatinæ lich. Islandici ℔ss.
Sacch. alb. ʒ iv.
Gumm. Arabici ʒ i. m.

Exsicc. leni calore in vase porcellaneo, donec massa in pulverem redigi possit. One or two tea spoonsfull of this powder is to be taken daily, first dissolved in a small quantity of cold milk, to which warm milk is to be afterwards gradually added.—*Otto's Bibliothek for Læger, Kiobenhavn,* 1834—*from Kleinert's Repert.* 1833.

---

8. *Sulphuret of potash in asthma:*—An individual laboring under a severe attack of spasmodic asthma, applied to Dr. Carusi, who having ordered the aqua lauro-cerasi, internally, and frictions with tartar emetic ointment, without success, directed sixteen grains of the sulphuret of potash, rubbed into a paste with honey. This quantity was divided into four portions, one of which was given three times a day. After the administration of the last dose, the

asthma entirely disappeared, and the cure was complete.—*Otto's Bibliothek for Læger, Kiobenhavn*, 1834, *from Annali universali di medicina.*

---

9. *Extirpation of a steatomatous omentum*—By Dr. HARTMANN.—The subject of this case, had for a long time complained of a swelling beneath the peritoneum, in the region of the stomach, and desired that an operation might be performed for his relief. After making an incision of four inches in length, along the linea alba, a steatomatous tumor was exposed, connected with the omentum, and adhering to the intestines. The tumor was cautiously removed, and the parts replaced. Immediately after the operation, the patient felt comfortable, but hiccup soon came on, and death took place on the third day.—*Otto's Bibliothek for Læger*, 1834, *from Sanitat's Bericht. der Provinz Brandenberg.*

---

10. *Fish bones occasioning the death of a fœtus.*—Dr. Malin reports, that in the body of a fœtus, of about five months, which was well formed in both its upper and lower extremities, he discovered fish bones, which had occasioned its death. The mother, who had aborted about this period, had complained about the third month of her pregnancy, of acute pain in the region of the rectum, with purulent discharge; pain of the inguinal region; tenderness of the whole abdomen; fever; constipation, and dysuria.—The pains were bearing down; a watery fluid was discharged from the vagina, and the os tincæ was high up and dilated. These symptoms were subdued by antiphlogistic remedies, and the woman continued well for two months, at the expiration of which time, the pains recurred. Previous to the first attack, she had had a great craving for fish, and in eating them, frequently swallowed some of the bones. It is probable that in this manner they became lodged in the rectum, and worked their way from thence into the uterus.—*Otto's Bibliothek for Læger*, 1834.

---

11. *Episioraphy, a new operation for the cure of Prolapsus Uteri.*—By DR. FRICK. Prolapsus of the uterus and vagina, Dr. Frick remarks, can never be remedied by machinery.—Of the numerous contrivances which have been devised for the purpose of maintaining the prolapsed organs in their situation, there is none, which, on account of the difficulty of its application, and the uneasiness and inconvenience it occasions, does not produce a greater evil than that which it is intended to remedy.

In those cases of prolapsus, where the organ can be easily replaced, and which are attended with but little pain, the displacement is generally endured without much inconvenience or suffering. But when the disease has been of long standing,—when the pelvis is preternaturally wide, and the constitution irritable, the female is generally very solicitous to obtain relief. In such cases, all the usual contrivances, from the simple sponge, up to the most complex machinery, will be ineffectual, and cannot be borne by the patient.—Any foreign body introduced into the vagina, will give rise to an augmented mucous secretion, and occasion ulceration and offensive discharges. On this account, it will be difficult to induce the individual to persevere in the use of the instrument; the disease will continue to increase, and will finally assume a more formidable character. This will be especially the case, should the patient belong to the laboring classes. Such individuals cannot maintain the erect pos-

ture for any length of time without increasing the tendency of the organ to descend, and as they cannot pursue their avocations while using the ordinary instruments, without suffering considerable pain, they are apt to lay them aside, and neglect their condition. The prolapsed parts will, therefore, become ulcerated, and indurated, and run into incurable disorganizations; and finally, the already enfeebled constitution of the patient will be worn out and exhausted by fever and emaciation, and death will close the scene.

All these difficulties may be obviated, and the disease effectually cured by Episioraphy, which is an operation instituted with the view of accomplishing an adhesion between the labia, and thus securing a natural barrier, by which the uterus and vagina will be prevented from prolapsing.

The operation is exceedingly simple, and is performed in the following manner. The patient is placed on the table, in the same way as for the operation of lithotomy, except that the hands and feet need not be tied. The operator seizes one labium between the thumb and fingers of his left hand, and with a sharp pointed bistoury, commences an incision about two fingers breadth below the upper commissure, and one finger's breadth from the margin of the labium itself. This cut must then be carried downward, with a bold sweep of the knife, to the fourchette, where it should terminate with a slight inclination inwards. In this manner, a slip of the labium will be removed, of the breadth of one finger. By a similar procedure a portion of the other, of the same size, must next be excised, taking care to unite the two incisions about a finger's breadth below the fourchette, at an acute angle, and include a portion of that frenum.

After securing the bleeding vessels, and arresting the oozing of blood from the spongy tissue, by sponging the part with cold water, the lips are to be brought together by suture in the usual way.—Previously to doing this, however, the operator should examine carefully the condition of the vagina and uterus, and if they require replacing, adjust them, and to maintain them in their situation, introduce a piece of soft sponge previously oiled, and transfixed by a ligature to withdraw it when necessary. The sutures must then be drawn close and the edges properly approximated as low as the fourchette, which will generally require from ten to twelve ligatures. The dressings should be simple, and secured by a T bandage. As it is desirable to obtain union by the first intention, and the contact of the urine might prevent it, that fluid should, during the first days after the operation, be drawn off by the catheter.

The aperture which is left above, will be sufficient to give exit to the menstrual discharge, and the mucous secretion of the vagina, and may even admit the consummation of the venereal act. Should conception take place, it will be easy, by means of a small incision, to make room for the passage of the child—*Annalen der Chirurgischen Abtheilungs des Allgemeinen Krankenhauses, in Hamburg, Bde.* 2, 1833.

---

12. *Case of Constriction of the Aorta.*—By R. L. Nixon, A. B. The aorta, in its transverse portion, just at the point where it is joined by the ductus arteriosus, exhibited a very singular constriction, similar to what would occur if a sharp instrument had been pressed upon its upper surface until it had diminished the calibre by about one-half. There was not, however, any depo-

sition in its coats of osseous or calcareous matter at this point, and the ductus arteriosus was pervious. The aorta, in the remainder of its course, appeared perhaps a little narrowed in its calibre, but normal in structure, if we except a few atheromatous spots on its lining membrane; the pulmonary artery, natural. Upon passing in the finger for the purpose of examining the state of the aortic valves, we were surprised to observe that it could not find a passage either from the heart to the aorta, or *vice versa;* but upon laying open the vessel, the difficulty was very easily explained, the valves being, if not removed, at least completely obliterated by an irregular fleshy mass, which grew from the line of junction of the vessel with the heart, and almost totally filled the canal. Several particles of phosphate of lime were deposited in the mass, in particular, one very hard and white portion presented itself, about the size of a small bean. The communication between the heart and aorta was reduced to an irregular slit-like opening, through which a common probe could not pass without some difficulty; and yet, through it all the blood of the system found its way.—*Dublin Journal, July* 1834.

---

13. *Sulphate of Copper in Croup..*—In Hufeland's *Journal für Practisch. Heilkunde for January*, 1834. There are some observations on this subject, by Drs. SERLO and MALIN, calculated to inspire considerable confidence in the efficacy of the remedy. Dr. Serlo having been called upon to treat a child affected with croup, resorted to calomel, leeches, tart. emetic and blisters, without affording much relief. He resolved to try the sulphate of copper which had been recommended by Hoffmann. He administered five grains of the sulphate, and in a few minutes repeated fits of vomiting took place, attended with the discharge of the false membrane; and from this time the disease was completely subdued.—Subsequently, Dr. Serlo has employed the article, conjointly with antiphlogistics, in about forty cases, out of which number he has only lost four.—In cases of laryngo-tracheitis of children, simulating croup, the sulphate of copper is not less useful.—As an emetic it may be given as follows:

℞ Sulphat. cupri. gr. iij.
Sach. Alb. gr. vj. M.

One of the following powders may then be given every two hours.

℞ Sulph. cupri. gr. ij.
Sach. Alb. — ℈. M. et divid. in chart. viij.

Doctor Malin has not been less successful, with the article, combined with other means, in the treatment of croup.—*Revue Medicale, Mai*, 1834.

---

14. *Cancer of the Diploë.*—A female subject with cancer of the breast, in whom the two thigh bones were on one occasion fractured by a very slight cause, was presented to M. Tessier, with cancerous tumours developed in the interior of the medullary canal of each femur; the sides of the osseous cylinder were reduced to an extreme thinness and fragility. The bones of the cranium presented also several cancerous tumours at different stages of development, but which all appeared to have their origin in the diploë.—*Dublin Journal, July* 1834, *from Revue Médicale.*

VARIETIES.

We learn with much pleasure, that Dr. W. P. Dewees has been appointed to the Professorship of Midwifery, in the University of Pennsylvania, rendered vacant by the resignation of Professor James, who after having filled the chair with honor to himself, and great advantage to the numerous classes of students who have resorted to the Institution, has thought proper to retire on account of the infirmities of age. We think the trustees have done well to appoint Dr. Dewees. He has for several years labored with great ability for the University, in the capacity of Adjunct Professor, and no one certainly is more competent to give valuable instruction in his department.

We would respectfully suggest to some of our cotemporaries, that when they copy our foreign extracts, it is but just they should acknowledge their obligation to our pages. Although this is the established rule amongst journalists, we should not have noticed any departure from it, so far as we are ourselves concerned, but we have seen our extracts from German journals, &c. copied, and credit given to some of our cotemporaries, who had selected them from our pages.

We have been reluctantly obliged to omit, for want of room, a very interesting communication, on the subject of quack medicines, which one our contributors has obligingly prepared for our pages. It will appear in our next. In the mean time, we have to inform certain *good souls* about town, who seem to take a special interest in drugging the community with Morrison's pills, and other precious quack nostrums, that they shall hear from us.

We feel grateful for the flattering reception of our first number, and in return, pledge ourselves to use every exertion, to make it deserving the favorable opinion and support of the medical profession.

Books and Periodicals received for our Journal within the last month.

An Inquiry into the Claims of Dr. William Harvey to the discovery of the circulation of the blood, with a more equitable retrospect of that event, to which is added, an introductory lecture, delivered on the 3d November, 1829, in vindication of Hippocrates from sundry charges of ignorance preferred against him by the late professor Rush. By John Redman Coxe, M.D. Professor of Mat. Med. and Pharmacy in the University of Pennsylvania. 8vo. Philadelphia, 1834. (*From the author.*)

A compendium of Operative Surgery for the use of students, illustrated with engravings. By Thomas L. Ogier, M.D., Lecturer on Anatomy and Operative Surgery, and Thomas M. Logan, M.D., Lecturer on Materia Medica and Therapeutics. Part i. 4to. Charleston, S. C. 1834. (*From the authors.*)

Anatomisk Beskrivelse over Fem Menneskelige Misfostere; af Etatsraad J. D. Herholdt. Dr. og Prof. Med. &c. med Tolv, Kobbertavler. Kiöbenhavn, 1829.

Bibliothek for Læger, Udgivet of Direction for det classenske Literatur—Selskab; Redigeret of dens Medlem C. Otto, M.D. Professor ved Kiöbenhavn's Universitat. No. 1, 1834. (*From Professor Otto, in exchange.*)

The London Medical Gazette for July and August, 1834.

The Lancet for July and August, 1834.

The London Medical and Surgical Journal for July and August, 1834.

The Boston Medical and Surgical Journal, Nos. 10 & 11, for October. (*In exchange.*)

The Transylvania Journal of Medicine and the Associate Sciences for July, August and September, 1834. (*In exchange.*)

The Medico-Chirurgical Review, for July, 1834.

Annales de la Medécine Physiologique, par F. J. V. Broussais, for January, February, March, April, and May. (*In exchange.*)

Revue Médicale Fraçaise et Etrangère, for May and June. (*In exchange.*)

The Dublin Journal of Medical and Chemical Science, No. xvi. for 1834.

Journal Hembdomadaire des progrès des Sciences et Institutions Medicale, Nos. 21, 22, 23, 24, 25 & 26 for 1834. (*In exchange.*)

Journal des Connaissances Medico-Chirurgicales, Nos. 10 & 11, for June and July, 1834. (*In exchange.*)

Journal de la Medécine Homœopathique, Nos. 10, 11 & 12. (*In exchange.*)

NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL

SCIENCE.

VOL. I.] DECEMBER, 1834. No. 3.

ARTICLE I. *Muscularity of the Human Uterus denied.* By SAMUEL B. SMITH, M.D. Surgeon U. S. Army.

IT is not difficult to estimate the condition of that individual, who voluntarily challenges an old established doctrine. He is heretical, and every one feels full freedom to assail him in unmeasured terms, and unless sustained by truth, he must fall before the fearful odds against which he has to contend. Neither genius nor integrity can long uphold him, and his ill-timed opposition will soon pass to merited oblivion. He may feel grateful if contempt be not added to his passport.

I place myself in bold relief, when I deny the muscularity of the *human uterus*, and stand to my defence against almost universal belief in its truth. This general admission was too easily adopted, and time has in some measure sanctioned what was never proved. The great names who have maintained this doctrine, are truly imposing, and I might have been submissive to so much high authority, had I not been prompted to resistance by their own shewing. My armament is from their own magazines.

The two great systems of anatomy and physiology are now so fully declared, that any one eminent master in each, may be taken as a standard for that particular science. This enables controversy to proceed with freedom, because it puts away volumes of confusion, and brings the parties in medias res, without any imputation, that advantage has been taken of any

general principle. Thus, should I adopt the anatomy of Sir Charles Bell, and the physiology of M. Richerand, (names very dear to American professors,) I am assured that such selections will be freely acceded to me.

Justice to myself requires this declaration,—that the objections advanced, are exclusively the suggestions of my own mind.

Sir Charles Bell, the most accomplished anatomist now living, declares that he has seen and dissected the muscular fibres of the human uterus. He moves by paragraphs, each one being distinct and remarkable. They are spoken boldly, as being free from all doubt or uncertainty. If he does not use the language of the whole profession, he does not entertain a single expression, that would imply that he is not perfectly free from all error in this matter.

To present these, will bring the subject fairly to view, and they will be convenient for our contemplated investigation.

1st. "The muscularity of the uterus is proved by direct and occular demonstration of the fibres in dissection."

2d. "By the thickness of the fibres corresponding to their degree of contraction."

3d. "By the visible action of the human uterus during life."

4th. "By the vermicular and intestine motions of the uterus, as seen in experiments upon brutes."

5th. "By the resemblance of its laws of contraction, (as felt, and as perceived in its consequences,) to those which govern the contraction of the other hollow viscera."

He has even given an engraving of one set of these fibres, those which are said to lie exterior upon the round ligaments, and extending over the fundus uteri. The speculation upon their uses, is in broad cast; "being especially well calculated to give the uterus and head of the child the right position with regard to the axis of the pelvis." From the figure, they seem to occupy the upper half of the organ.

Sir Charles continues the subject, and gives some additional remarks, which will be valuable in its discussion, the more so, as they place his opinions of the parturient powers of the uterus beyond the possibility of question. "On the outer surface, and lateral part of the womb, (what surface is not exactly stated,) the muscular fibres run with an appearance of irregularity, among the larger blood vessels, but they are well calculated to *constringe* the vessels." Notwithstanding this appearance of irregularity, there

is no hesitancy as to the visible fibres. The succeeding sentence is truly astonishing, as containing a bold, unqualified assertion, although darkness overshadows it. "The substance of the gravid uterus is powerfully and distinctly *muscular*, but the course of the fibres is less easily described than might be imagined."

From the terminations of the chief of the circular fibres on the fundus, those running towards the orifice are given as longitudinal. "These diminish the length of the uterus; dilate the orifice, (how is not explained,) and draw the lower part of the womb over the head of the child." It is further asserted, "that the muscular fibres must be destined to constringe the numerous blood vessels, which supply the placenta, closing their smallest pores, which would be ruptured, when the placenta is separated from the womb." To make this matter perfectly understood, he anticipates the consequences to be expected from extra uterine cases, viz: "hemorrhage destroying the mother, because of the absence of these constringing fibres."

He also discovered muscular fibres on the inner side of the uterus, which had never been before described. These are called *vortigenous*, and terminate in a broad irregular zone or band towards the orifice. No muscular aid was required from the os tincæ, consequently none is acknowledged to exist, because "it would be unreasonable to conceive that the contents of the uterus are to be retained during nine months of gestation by the action of a sphinctor."

His conclusions are downright, that the "natural actions, as well as the unnatural or violent actions of the womb, producing ruptures of the organ, and flooding, &c. all depend upon its *muscularity*." In violent actions causing ruptures, he is very explicit, and three very imposing cases are recorded. The two first bear some resemblance to each other, in this, that they both proceed from a delay of the child's head, within and near to the orifice, whilst the muscular action was in great power. The third was truly horrible, and was the result of the same muscular action upon a child in a distorted pelvis. He writes, "after the death of the woman, it required my whole strength, standing on a table, to draw back the remains of the child's head, which were wedged in the distorted pelvis." It would be unnecessary to adduce stronger examples of uterine powers, if it

be admitted, that these could have been derived from the muscular exertion of the organ itself.

Of the nature and offices of Muscular Fibre.

The first inquiry essential to the proper investigation of our subject, relates to the nature of muscular fibres in man, and the laws which govern them.

Muscles are appropriate organs of motion. They are esteemed to be the only true contractile fibrous texture in the body, the fibres being formed into fasciculi, variously arranged, agreeably to the actions to be performed. M. Richerand makes them *red* in man, but does not deem this color as *essential*, since he says it may be removed by "macerations or repeated washings." That such a declaration should have been announced by the profoundest master of physiology in modern times is seriously to be regretted.

How important it would be to the sciences, if her great teachers would consent to remove every obstacle to light, and to admonish those who look to them for instruction to avoid even the appearance of error. Had the expression been strictly generical, including all muscular fibres, no exception would have been taken to it, because in multitudes of living creatures, their moving organs are colorless, for good and obvious reasons. But in man, of whom he was writing, there are no white muscles. Restless even to absurdity, he is formed for enduring activity, and his strength is in his rosy flesh. Summon him to the conflict, from pale and collected calmness, and how soon every muscle is vermillioned with his rushing blood. In a natural sense, the color of a man's muscle is of as much consequence as its form, and is essential, because it is demonstrative of health. Macerations and washing may whiten his fibres, but this blanching is a positive indication of disease.

Color is further essential to enable the anatomist successively to follow them in his dissections, affirming conclusively what organs contain them. See the pale and flabby tissues of that emaciated subject upon the anatomist's table! What does it denote? A miserable victim to a slow snd painful death from consuming disease.

Would the muscles of the gladiator so nearly resemble blood if its color was not essential? Contrary admissions would establish error.

All the cruor may be washed from a clot of human blood, leaving only white fibrine. Would it be well to say that the *red* color is *non essential* to its just character, because the cruor can be washed from it? Sir Charles Bell has countenanced this sophistry, and at the moment too, when he was scourging the old anatomists and physiologists for desiring to know, what if known, (the red color of the fibre) would be of no avail.

He exhibits fishes, fowls and reptiles, with their cold, white construction, to impress a belief that man's need not be *red!* Why resort to these half animals, if not to force analogy? Why not object to the human skin as not essential, for the prevention of destroying irritation, and say that crusts, scabs, and feathers, would answer as well, because inferior creation possess them.

The curtain of the eye (*iris*) has been cited as an instance in which muscular fibres may not be red in man; but even in this solitary case there is no direct proof that it is a true exception, because the color of such exceedingly delicate fibres may be concealed by a stronger pigment.

Bell very justly refuses credence to any evidence of muscularity except *contractility*, and yet this principle did not enable him to trace the fibres on the *inner* side of the womb, which had never been before described. The organ lay dead upon his table, and could not have evinced contractility to favour speculation. Under any circumstances, therefore, he could only suppose that he saw them.

M. Richerand teaches that the *brain* when excited by external objects, *irradiates* into the muscles the principle of motion, and induces the exertion of their contractility. Bell feeling the utter inadequacy of words to explain *how* these external objects operate to produce a result so singular and impressive, does not attempt a pursuit so vain; but in a candid, manly declaration admits the principle to be an original endowment from the Creator, and imparted in a manner which we cannot know. Both of them give two moving powers: one in which the *will* directs voluntarily actions: the other, where peculiar stimuli acting on certain vital organs, cause involuntary motions. This last is called the "sentient and involuntary contractility," over which the will has no control, and is evidently intended for the preservation of life, when man's wayward fancies might endanger it, or his wickedness throw it away.

In whatever way imparted, it is apparent that all motion is

derived from the *nerves;* and the principle of motion has been variously named, the most accepted being the *vis insita*, or irritability.

The stimulus conveyed by the nerves to the irritable principle, calling for voluntary motion, is called *vis nervia* or nervous power. Whether the vis nervia, or the peculiar stimuli, be applied, the muscular fibres are obedient, and evince contractility, and what is worthy of serious remembrance, they cannot refuse long to act. Blood is the peculiar stimulus for the heart and arteries; chyle for the lacteals; seminal fluid for the testes; urine for the bladder, &c. &c.; but it cannot be admitted that the fœtus is such for the uterus, for reasons to be hereafter assigned. It is natural for muscular fibres to *relax* as well as to contract. The term relax is used in preference to "be relaxed," because although relaxation may be considered in a great measure as passive, yet it is indispensable for the renewal or irritability, which previous activity always impairs.

There is another characteristic of this fibre from which something special is to be inferred, and that is, its liability to expansion or to be expanded; for when any power too great for resistance is applied, it yields to the force, and becomes *thinner*. No example can be given in which any muscular organ increased in thickness, and preserved its health, whilst subjected to this attenuating process. Of this again.

The will exercises dominion for a limited period over certain voluntary fibres, which for peculiar uses were made to be subservient to it; but the vital organs will not be so governed by it; and so long as the irritable principle remains unimpaired, and the stimulus adapted to their requirements is applied, motion is *compulsory*.

Let these principles be applied to certain hollow viscera, of which the true muscular tissue is known to be a component part, and then contrast their *conduct* (if the term be admissible) with that of impregnated uteri, and it will not be difficult to comprehend that they bear no resemblance to each other. Before, however, proceeding to this contrast, a few remarks upon the propositions of Sir Charles Bell may be indulged in.

Prop. 1. "Muscular fibres demonstrated by dissections."

When an author, who ranks with the highest, declares that he has *seen* muscular fibres, or indeed any thing else in the womb, good breeding, and respect to greatness, constrain the world to admit that he thought he saw what he describes, and he will be no

further contradicted than to have adduced the adverse or negative testimony of those who had not the same perspicuity with himself. As affirmation and denial cannot establish the truth, this part of our subject must remain as we have found it, except so far as a denial of their existence is founded upon argument.

Prop 2. "The thickness of their fibres corresponding to their degree of contraction."

This will scarcely be admitted. For neither the eye, nor mechanics, nor arithmetical propositions, can be considered safe basis upon which to calculate the powers appertaining to living structure, which age, figure, posture, health, temperature, excitement and resistance, vary every hour. Muscular tissue can be reduced almost to infinity; hence the term degree of contraction or decurtation must be relative and arbitrary.

Prop. 3. "The visible action of the human uterus during life."

Are we to understand by this assertion that uterine motions can be discerned by looking upon the exterior surface of the abdomen? Impossible. Under what circumstances, then, were they visible? Surely not at that awful moment when the belly was severed with a gaping wound, and a hurried demand for the extraction of the fœtus, existed! Who has the hardihood to admit that he could study, or even look calmly for the actions of small tissues when the unhappy mother was expiring, or in the greatest danger of it, in a condition so dreadful! The quiverings of expiring nature would be too revolting to permit the steady view necessary to make a correct report of an individual organ.

Prop. 4. "The vermicular and intestine motions of the uterus, as seen in experiments upon brutes."

Brutes are not constructed like our mater. This proposition then can only introduce a begged question. No man breathing objects more strenuously to distant or forced analogies, than the admired writer who gravely advances this erring doctrine.

Prop. 5. "The resemblance of the laws of its contraction to hose which govern the contraction of the other hollow viscera."

Hic labor, hoc opus est. This proposition is most entirely denied. The absence of this very analogy first gave the impression that the womb was nervous, vascular, or indeed any thing else but muscular. When the actions of the other hollow viscera are stated, we will have more reason to be satisfied at the contrast between them and the gravid uterus.

It has been already said, and it is universally admitted, that

muscles are bundles of fibres, destined for motion, which is performed by their contractions: that they are endued with an irritable principle by *irradiation*, or from an original endowment: that the application of stimuli, whether proceeding from mind or matter, causes them to manifest vitality, the evidence of which is *contractility*, and that this motion is irresistible.

We will now apply these principles to hollow organs containing a muscular arrangement.

1. *The Heart.* When blood flows into it, instantaneous, vigorous and regular, action ensues; and every fibre of this noble member, obedient to natural laws, drives the vital fluid forward, that it may with certainty attain its ultimate destination. This great functionary, standing in the centre of two immense systems, derives no internal aid from the intelligent principle of him whom it serves. His time and attention are sufficiently occupied with external life, and all the high vital functions must proceed upon the instinctive principles of stimuli and irritable nature, drawn from the nervous system. A moment's irregularity inducing a delay of blood in the concavities of the heart, creates unutterable confusion and distress. Unwonted struggles are instantly manifested to provide for the safety of general life, and these must prevail, or all must be lost.

To guard against interruption to regular action, the heart is wholly muscular, so that no part of it can be free from impulsion, when exciting causes command.

2d. *Urinary Bladder.* This is a musculo-membranous sac of considerable detrusive power. When there is an accumulation of its peculiar stimulus, a sense of pressure is felt in the pelvis, and a species of tenesmus runs along the urethra, warning the individual to void its contents. The organ contracts, the diaphragm and abdominal muscles aiding, and the whole urine to the last drop is discharged, by a process similar to the expulsion of the fæces.

3d. *Rectum.* This membrano-muscular canal, from its structure, situation and solid contents, calls for more assistance from the diaphragm and abdominal muscles than the bladder. Being also less sensible to stimulus, it does not so soon suffer from an accumulation, and retention of its conents; but they must be sooner or later ejected. This is effected by an increased intestine (muscular) movement, the great belly muscles assisting. It needs not any detail of the consequences, should either the bladder or rectum be obstructed too long.

4th. *Arteries.* These muscular tubes, being appendages to the heart, feel with it the irritating influence of the blood, and pulsate in general harmony with it. They have serious penalties to endure, when hindered from the performance of their accustomed movements.

These topics might be enlarged, and the argument extended, but enough has been said to explain the nature of the hollow muscular viscera, when under excitement.

Let us now take the uterus, and place in it bodies distinct from itself, a placenta—membranes—serous fluid, and a fœtus, filling its capacity, leaving no interspace. These substances must grow, and the increment progresses for many months, until they acquire a prodigious weight, and all the beautiful proportions of the woman is lost in a vast rotundity of body.

Expansion of the organ advances for the accommodation of the mass, but the walls of the tenement have actually increased in thickness, to enable them to sustain the burthen, giving a first and decided proof of departure from muscular laws. If the increase depended upon vascularity, then the muscular tissue must have suffered a state of tension ab ovo, a state altogether unsuited to its nature and demanding relief. Granting this to be the case, for the sake of the argument, then what becomes of the second proposition? The fibres towards the close of gestation would be absolutely lost by expansion, and could not afford any parturient assistance. But so far from requiring relief, we wonder at their immoveable tranquility under this huge load of stimulus. Even for many months after the added stimulus of fœtal life and action, still these fibres refuse to answer to muscular laws, and pertinaciously resist contraction!

What would have been the condition of the heart and arteries, or of any of the hollow organs, under such an engorgement? The answer should be, thinness by expansion to bursting, and with the rupture, loss of general life. The muscular advocates must abjure the obstinacy of these fibres, confounding their whole system, by refusing to contract for ten lunar periods.

Will it be said, that the security of the species requires that *contraction* shall not prevail until nature is ready to produce her likeness? Be it so, but it calls for an explanation more rational than any in which irritable muscular fibre is involved. The various well arranged ligaments attached to the womb are amply sufficient to sustain it, in its natural posture in every

emergency, without the requirements of such workers of mischief as these fibres would prove to be, if obedient to their proper functions; hence the circular fibres on the round ligaments and fundus uteri, to give the head of the child the right direction, with regard to the axis of the pelvis, might be dispensed with. This is better understood when we advert to the serious derangements of the organ, such as retroversions, prolapsi, &c. when a relaxed state of these ligaments in feeble women, prevents the performance of their appropriate duties.

There is a matter of fact affair connected with delivery, which deserves attention, because it has been adduced as a proof of uterine muscularity. It is the hour glass contraction of accouchers, who gave this appellation, from its supposed resemblance to the little sand glass in use to measure time. If this contraction proceeds from muscular force, it could only be effected by a band of circular fibres, running around the centre of the circumference of the uterus; but such a belt has never been demonstrated, and its existence is a mere conjecture. With due submission another solution for this very troublesome action is offered. The charge rests against ligamentous tissue, as it is so strongly manifested in hernia strangulata, paraphymosis, and similar disorders.

Purely muscular contraction is so soon succeeded by relaxation, one of its marked characteristics, that any very serious alarm can seldom be entertained for the convulsed parts. A knowledge of the ligamentous cords, enables us to estimate their grasping, unrelenting terrors, when inflamed or irritated, as every practised surgeon can testify. They take place very suddenly too. Strangulation has been known to be confirmed in thirty minutes, after a sudden strain had thrust a portion of the omentum or intestine under the crural arch, or through the abdominal ring. Other strictures occur frequently after pressing irritation and inflammation, quite as rapidly as those of the womb, which has undergone complicated labor. The author of this paper once saw a case of severe urethral inflammation in a depraved subject, in which a full establishment of three hour glass contractions prevailed, so as to make the penis of the negro to resemble a sausage, bound tightly by several ligatures. Had the surgeon here trusted to spontaneous relaxation, or indeed to any resources but the bistoury, the parts so corded would have suffered partial or total death.

How does the uterus resume its place after delivery? Much in the same manner, it may be supposed, as does the virile member after the subsidence of irritation. It is a collapse, from a sudden departure of blood, now no longer necessary to its economy. Neither the enormous turgescence of this member, nor its sudden subsidence, have ever been explained upon muscular principles, and yet these are greater than those of the impregnated uterus, the magnitude of both being considered.

How is parturition performed, if not by the agency of the uterus itself? Unquestionably by the respiratory and abdominal apparatus. If the subject was a proper one for delineation, a melancholy picture could be drawn of the striking disasters which have resulted in difficult labors, from the uncontrollable action of these great muscles.

Can any one conceive it possible, that the memorable cases recorded by Sir Charles Bell, could proceed from the muscular endowments of the womb, and this too, after these fibres have suffered expansion for nearly three hundred days!

Here would be a proper study for decurtation and muscular proportions, and it would be curious to know what was the vis a tergo required to drive the cranium of a fœtus so deep into a mal-formed pelvis as to require a man's entire strength, assisted too by a highly advantageous mechanical position, (standing upon a table over the subject,) to extract it from its wedged state!

The crushing in of the cranial bones; the bursting of the uterus; the rupture of the abdominal walls; the lacerations of the vagina and perinæum, and the separation of the symphisis pubis, must result from adequate forces; and it would be asking too much of a few fleshy threads, whose very existence is doubted, to be the doers of disasters so terrible. It cannot be admitted that more has been advanced than can be allowed by muscular defendants, and that they always advocated the co-operation of the diaphragm and abdominals. Their co-operation was so subordinate as to escape particular remark. Plain dealing is best in every thing; and it is only required that what the best and wisest of them has written, should be carefully read, to satisfy any one, that the parturient power for good or for evil, is exclusively imputed to the actions of the uterus, without reference to adventitious aid.

Do the fibres so admirably fitted "to constringe the blood

vessels," *sleep* till the retiring womb wakes them to enact their part in this singular drama? This would not be muscular nature: for it cannot repose under irritating powers. What then is the stimulus which urges their constringement? Necessity would sound strange to modern physiology! There are many "struggles for expression" to cover ignorance, and various stimuli have been enumerated, and some of them curious enough; but no one has yet ventured upon that of *necessity.* Man will not acknowledge ignorance; his proud heart refuses submission even to supernal power and wisdom. This very subject, common as it is, he feels has been placed beyond his comprehension; yet he must explain it, as well as every thing else; and in doing so, describes invisible and inexplicable things. The erection and collapse of the male organ is equally curious and embarrassing, with this child making, child keeping, and child expelling apparatus of the female. A transient desire instantly collects an amazing amount of blood in its passive cells, without consciousness, and without any vertiginous, longitudinal or spiral fibres to create the "tumid wonder." A few short convulsions, or any revulsion of feeling, will in one moment proclaim a sad reverse, revealing present impotency, and a very near approach to annihilation.

Who pretends to account for this phenomenon? and yet it strikingly resembles its recipient organ, in its vast supply of blood, nervous irritability, turgescence and collapse, by undefinable powers. An unnatural delay of blood too, in each, will, under peculiar circumstances, establish in an incredibly short time, alarming contractions or strictures, which evince too much obstinacy to appertain to a few fleshy fibres. There is also a special irritability common to both sexual organs. In the male, of a debauched life, it frequently happens after an improvident use of ardent spirits, or some medicines, as cantharides, opium, turpentine, &c. the organ assumes an unappeasable fulness. This horniness has no reference to venereal appetite; nor could the turgid instrument perform the usual act of grace to a female. In the language of the schools, "this semblance to virility proceeds from indirect debility." So too, the uterus, from its highly vascular and nervous organization, is liable to this very condition, from indirect debility, after certain distresses in child birth. In this state, it remains inactive, at a very critical moment, when

the patulous mouth of the vessels which lately supplied the placenta, endanger the mother from hemorrhage.

Cold, in either case, suddenly applied, reduces the fulness and causes a collapse. Every official attendant upon delivery, is familiar with a *rigidity* of the cervix uteri, preventing easy labor. As it has been declared "unreasonable to conceive that the contents of the uterus are to be retained during nine months of gestation by the action of a sphincter," it would be desirable to have an elucidation of this unmuscular tenacity. This fact shews that there is a power of resistance in membrano-vascular tissues not derivable from flesh.

Should the various fibres described as belonging to the womb be put in action, some pressing it down, others drawing it up, and others constringing the whole, what ought to follow these various vexations, but an expulsion of the fœtus? and yet all remains tranquil until the fitting hour, the fulness of time, arrives to mar the woman's peace. With but little premonition these small meshes (*ex necessitate,*) cast out the future man; and woe to that mother who has any constitutional impediment to its departure.

If it could be answered by an honest appeal to experiment, it might with profit to this discussion be asked, whether a woman could parturiate under a paralysis of the abdominal muscles! From some facts on record of females who had sustained injuries of the belly before confinement, the inference would be that she could not. The silly stories of the startling powers of ergot, may amuse vulgar ignorance, but can only excite the contempt of well instructed men. The utmost that this or any other emmenagogue can do, is to irradiate some warmth into a leucophlegmatic habit, or rouse by its stimulant powers, a temporary salutary action in an exhausted system.

Sir Charles asserts that extra uterines prove fatal because hemorrhage destroys the mother, in consequence of the absence of the "constringing fibres." This is assumption. In every process which has for intention the preservation of any great principle in nature, we see unerring wisdom in the design and arrangement. Ages roll past, and the same beautiful unity of action prevails, because omniscience made it good. Why the oppossum is ordered to conceive and carry her young differently from the raccoon, or from any other quadruped, or why woman is distinct in this respect from all other animated creatures, are

wholly beyond our feeble reason; but unceasing observation informs us that *certain* organs, actions, sympathies and periods, co-operate in uninterrupted series to perpetuate life. *We* cannot essentially alter them, and any deviation from them is esteemed a lusus of nature, exciting a momentary wonder, and is soon forgotten amidst the general harmony. The application of established principles to explain these whimsies, must be vain. The uterus was expressly designed for *child* bearing; and should a fœtus be found out of its allotted place, it is sufficient that the mother dies, without any call upon that unnatural philosophy which would attribute her loss to any special cause.

Annapolis, Nov. 1834.

ART. II. *Reports of Surgical Cases, with remarks by* N. R. SMITH, M.D. Prof. of Surgery in the University of Maryland.

I. *Case of Lithiasis. Mortification of the glans penis from sympathetic irritation. Death.*—A. B. a seaman, aged seventy-one, was received into the Baltimore Infirmary, November 1, laboring under symptoms of calculus in the bladder. He was, for his age, rather robust in appearance, and had evidently possessed a constitution of uncommon vigor. It was manifest that he was then laboring under a considerable degree of gastric irritation and febrile excitement. His principal source of suffering, however, was in the urinary organs, and he was conscious of having stone in the bladder, from the fact of his having previously passed small calculi, and from his distressing sensations. He reported that he had labored under symptoms of stone for only one year. Those symptoms were now unequivocal and extremely urgent, causing him such extreme distress, that he earnestly importuned for relief even by the most painful means, and at any hazard. His micturition was frequent and excessively painful,—accompanied with the usual spasmodic throes of the bladder, and tenesmus. The pain in the glans penis, so characteristic of stone in the bladder, was almost constantly severe. As is usual in this disease, the urine at times flowed freely, and was often suddenly stopped as if by the falling of the calculus upon the inner orifice of the urethra. There was neither mucus, pus, nor blood discharged from the bladder, and the urine presented nearly its usual appearance.

I immediately proceeded to make the examinations which

the case required. The sound passed the urethra without much impediment, and on entering the bladder instantly encountered a large calculus. Practising the usual manipulations with the instrument, and introducing at the same time the index of the left hand into the rectum, I endeavored to ascertain as nearly as possible the number and size of the calculi. I was surprised to find that there existed one of large size. I say "surprised," because from the comparatively brief time that the symptoms had continued, I did not expect to encounter a stone of large dimensions. I have generally found the age of the disease to be one of the best data by which to determine the magnitude of the calculus, and I had never before met with one of large size that the symptoms had not existed for a much greater length of time. I expressed at the time the conviction that the calculus had existed long previous to the period when the patient became conscious of its presence by the ordinary symptoms. An encysted calculus, we very well know, may for a long time not give rise to any considerable degree of irritation, and they have even been found free in the bladder after death in persons, in whom, during life, no symptoms had indicated their presence.

As nearly as I could ascertain, the calculus was something larger than an egg. Its form I could not accurately ascertain. The bladder, when explored with the sound, yielded readily in every direction, and did not feel particularly morbid; nor was there much pain occasioned by the examination, or any blood subsequently discharged from the bladder.

Lithotomy was of course the only remedy to be thought of, and for this the patient importuned. There were, however, some very unfavorable circumstances attending the case, besides his advanced age. The existing gastric disorder forbade a resort to the knife without previous treatment. There also existed an irritable leprous eruption upon the skin of the hands, face and legs, which evidently had existed for a long time, and was probably connected with some constitutional derangement.

He was immediately put upon a course of preparatory treatment. After a few days, some improvement in his condition having taken place, I appointed the day for the operation, and flattered myself that I had as much reason to hope for success as in some other instances in which I had performed lithotomy.

On visiting the house on the morning of the intended ope-

ration, I was informed that my patient had passed a bad night, and was then suffering much. He had been seized with a strong ague, and this had been succeeded by high febrile excitement. I found his skin hot, his tongue much coated, his pulse hurried, thirst urgent; great restlessness; extreme and frequent distress in voiding his water; pain in the region of the bladder; tenesmus; great pain in the glans penis. He was manifestly, therefore, in a condition to forbid the operation, and I immediately announced my determination to postpone it. I caused blood to be taken from his arm, an aperient to be given, and an anodyne enema to be administered. These means were followed with some mitigation of the unpleasant symptoms. The pain in the glans penis, however, continued to be extremely distressing, and on the third day after that appointed for the operation, without any obvious preceding inflammation, gangrene displayed itself in the glans about the orifice of the urethra. His pulse about this time suddenly sunk, and indeed all the symptoms of approaching dissolution supervened. The prompt employment of stimulants and tonics had very little influence in sustaining the powers of life. He died on the day following.

Autopsy. The entire glans and a portion of the body of the penis were gangrenous; but none of the ordinary evidences of inflammation were present in the organ. On laying open the abdomen, no traces of inflammation were discoverable in the peritoneum—not even where reflected over the bladder. On raising the latter organ to view, it presented a pallid and bloodless appearance, but was evidently somewhat thickened and more than usually opaque. The bladder was then removed, together with the rectum and a portion of the arch of the pubes. On laying open its cavity two calculi were exposed. One of them was of very large size—something larger than an egg; oval in form, and a little flattened. The second was very small. They were composed of the phosphatic salts. Both were somewhat rough upon their surfaces.

On inspecting the internal surface of the bladder it was found to present the columnar condition described by pathological writers, and arising from hypertrophy of the muscular coat of the organ. The enlarged muscular fasciculi strongly resembled the fleshy columns of the heart, and intersected each other in every direction. They were particularly large in the bas-fond of the organ. The mucous surface of the bladder was no where

ulcerated, nor did it present any of the evidences of much recent inflammation. It was, however, a little thickened. The third lobe of the prostrate gland was enlarged, and projected into the cavity of the bladder of the size of a large chestnut. It was soft, and exhibited no appearance of specific disease.

The kidneys were found to be very soft and flabby—mottled on their surfaces—but presenting none of the effects of recent inflammation. On exposing their parenchyma, no earthy matter was discovered in them, nor was there any disorganization.

The stomach and intestines exhibited the effects of recent inflammation, but in a degree no greater than might be expected to arise from sympathetic irritation. It was deemed unnecessary to examine the viscera of the chest and head.

I think it manifest, from the appearances above related, that this man died from irritation inflicted upon the bladder by the calculus; but that which is interesting and important in the case is, that the principal disorganizing effects of this irritation were not felt in the bladder itself, but were, by continuous sympathy, transferred to the glans penis.

II. *Lithotomy. Calculi of unusual size. Recovery.*—I was requested (Nov. 1.) by my friend Dr. Whitridge, of Gay street, to visit A. Kanipp, a baker, living in Old Town, supposed to have stone in the bladder. The patient informed me that he had labored under the distressing symptoms of the disease from early childhood; but had at some periods of his life enjoyed an immunity from pain during considerable intervals. He was then about twenty-seven years of age. He had recently labored under a gastric fever, for which he had been judiciously treated, and was now convalescent. His pulse was nearly natural—his tongue shewed a white coat, but was moist—his appetite was rather preternatural—his bowels were free, evacuations of a healthy aspect and soft consistence occuring almost whenever the bladder was emptied, which was at variable intervals of one or two hours. Tenesmus and some degree of prolapsus were often provoked at those moments. His muscular strength was much impaired, and he was neither able to be upon his feet, nor indeed to endure, longer than a few minutes, the sitting posture. Powerful involuntary contractions of the bladder and abdominal muscles occurred whenever he voided his urine. No blood, pus, or mucus, were discharged with that fluid. The patient was exceedingly importunate for relief at any hazard.

On proceeding to make the necessary examinations, the sound passed without impediment, and immediately on entering the bladder, encountered a large calculus. I then endeavored to ascertain its magnitude as nearly as possible, and to learn whether there existed more than one. The patient, however, suffered much from the examination, and before I had fully satisfied myself, I was obliged to desist; but I learned that there existed at least one calculus of very large size. I estimated it's longest diameter to be at least two inches.

Our patient was deemed to be at this time in a state too feeble to admit of an immediate operation, and as he was still convalescing from his recent attack, it was resolved by myself and medical friends, that should he continue to improve, the operation should be performed on the 6th. That day proving unfavorable, we met for the purpose on the 8th. We found the patient willing, but nevertheless suffering some trepidation, and evincing a good deal of constitutional irritability. I was assisted in the operation by my friends Drs. Whitridge, Dunan, and Isaacs. Several medical friends and pupils were present.

The patient was placed on the table described in No. II. of the Baltimore Medical and Surgical Journal. The instruments described in the same article were also employed. The incision was made with great facility, and with a single thrust of the knife; the patient suffered from it in but a slight degree. In a moment I had my finger upon the stone. But now occurred the difficult part of the operation. The calculus which I felt, was manifestly too large to be extracted entire through an incision of prudent dimensions. I immediately endeavored with the forceps to crush it. Anticipating this difficulty, I had provided myself with strong forceps for this purpose. But these I had no occasion to employ, as I had no difficulty in breaking the stone with an instrument of small size. Having done this, I extracted fragment after fragment: some of size equal to that of an ordinary calculus. While effecting the removal of these, I had supposed that I was encountering only one calculus, but it subsequently appeared that there were two of nearly equal, and very large size. The one which I first seized was directly in front of the other, which last was partially encysted; the posterior, upper, and left portion of the bladder being pursed around it. Having removed the fragments of the first, I felt the other firmly embraced by the bladder. It was at first scarcely accessible to the

finger, and with difficulty approached by the forceps. At this moment I received very important assistance from my friend Dr. Whitridge, who, pressing with the fingers of both hands, immediately above the pubis, forced down into the vicinity of the wound that portion of the bladder in which the stone was embedded, and made it completely accessible to the finger, so that by repeated efforts I disengaged it from its confined situation, and was then enabled to seize and crush it with the forceps. I then continued to extract fragment after fragment till I had nearly filled both hands of one of my pupils who received them. In the extraction of these fragments, I still received important assistance from Dr. W. who pressed downward the bladder so as to bring its whole cavity within my reach. Some of the smaller fragments I rolled out from the bladder with my finger, co-operating with my left index in the rectum. At length I could touch with the finger no more earthy substance in the bladder, and on introducing a straight sound through the wound into the bladder, and carefully exploring the whole cavity of the organ, I became satisfied that I had removed every foreign substance from the bladder.

During the progress of the operation, and while occasionally introducing my finger into the bladder to ascertain the position of the stone, or to change its position, I had ample opportunity to determine the pathological condition of the bladder. I found the inner surface of the organ to present the columnar condition, so frequently arising from the long existence of stone in the bladder. I also ascertained that, the third lobe of the prostate was enlarged, and formed a kind of soft uvula projecting into the bladder.

During the operation, which was necessarily protracted, occupying about forty-five minutes, the patient bore himself manfully; complaining much, but yet not despairing. I frequently requested my assistants to examine the pulse, and as often learnt that there was no sinking of the vital powers. He several times took wine and water during the operation. Not much blood was lost, nor did it become necessary to secure any bleeding vessels.

The operation being completed, I placed him in bed upon his back, no dressings whatever being applied to the wound. His pulse was then about one hundred and twenty beats in a minute, and surprisingly firm, considering the enfeebled condition in

which he was previous to the operation, and the extreme and protracted suffering to which he had been subjected. To obviate, in some degree, the shock which the nervous system might be supposed to have received, I directed the exhibition of fifty drops of the tincture of opium. I also directed that there should be administered a small quantity of liquid nourishment.

There certainly was great reason to fear an unhappy result in this case, and I felt extreme solicitude in regard to my patient. I saw him again in the evening, four hours after the operation. He had in the mean time suffered a severe chill, followed by fever, which, however, had been dissipated by sweating. He was now in quite a comfortable condition; but little blood had flowed, and urine had issued from the wound without more than usual suffering to the patient. The abdomen was not at all tumid, nor was there any considerable degree of tenderness in the belly. His stomach was quiet, and he had even some inclination for food.

I saw him again on the following morning. I was agreeably surprised to find him still doing well; he had slept at intervals during the night; had passed water by the wound, and once or twice freely by the penis, this being accompanied with pain and spasmodic effort, and apparent obstruction in the wound, probably occasioned by coagulated blood.

It will not be necessary to detail the progress of this case; it will suffice to say that it is now the 12th day since the operation, and the patient has been uniformly doing remarkably well. His pulse is now eighty-five beats in the minute, his tongue clean, his belly soft and not at all tumid; the wound has digested well and presents healthy granulations; urine is beginning to pass freely by the natural channel; his bowels are in a good state; his strength improving; and, in short, without some accident, I consider his recovery not at all doubtful.

The fragments of the calculi which could be accumulated, weighed six ounces; but as much of their substance was reduced to sand by the frequent use of the forceps, and necessarily lost, the stones entire could not have weighed less than half a pound. I have since endeavored to adapt the fragments to each other, in order to determine the size and form of the calculi. They were probably of nearly equal size, and the diameter of each must have been about two inches in one direction, and one and a half in the other, the form being a little oval. Although

compact and hard, the specific gravity is not great, they being composed chiefly of the lithate of ammonia. Their structure and appearance is very uniform throughout.

It will appear from the above account of the operation that no means were employed for the purpose of washing from the bladder any sabulous matter which might be supposed to be left in the organ by the crushing of the stone. I was careful to ascertain that no earthy particle of appreciable magnitude was left in the bladder, removing with the forceps or the finger all such as I could touch; but I have never, in any similar operation, felt any apprehension in regard to any particles of sand which might be left in the bladder. This organ always seeks to rid itself through the wound of every thing of this kind, and if the wound be sufficiently free to admit of the extraction of a considerable stone, every particle sufficiently small to be washed out of the bladder by a stream of water from a syringe, will certainly be washed from the organ by the urine, or be expelled from it by its contractions. I have never practised washing out the bladder with a stream of water, and yet in the numerous instances in which I have operated, stone has not recurred except in one individual, and in that instance I have ever been suspicious that I left an encysted calculus in the organ. I repeated the operation one year after, and removed a considerable stone.

I deprecate the practice of washing the bladder with a stream of water, because, if it be thrown with sufficient force to remove mechanically any foreign substance from the organ, there is great danger, as the instrument itself obstructs in some degree the regurgitation, that the water will be injected into the loose cellular tissue about the prostrate, and thus give rise to inflammation, and eventual suppuration and sinusing.

This case makes twenty-three in which I have performed the operation of lithotomy, with complete success in every instance, and I cannot but flatter myself that my success has been in a considerable degree owing to the mode in which I execute the operation, by the aid of instruments described in the second number of the Baltimore Medical and Surgical Journal.

III. *Accidents from bleeding with the common spring lancet.* A few days since I was called some miles from Baltimore to extract from the arm of a lady the blade of a spring lancet, which, in bleeding, had been broken by the quick, smart stroke

of the spring, and, flying with great force, had completely transfixed the vein, and buried itself in the parts beneath. The accident occurred in the hands of an intelligent and prudent physician, and, being wholly the fault of the instrument, was such as might have occurred in the hands of any one who employs the spring lancet. As the gentleman in whose hands the accident occurred was unprovided at the time with the instruments which might be needed to effect the removal of the blade, he requested that my assistance might be obtained. I saw the patient some three or four hours after the accident. Not much inflammation had occurred in the wound, nor had the patient suffered much pain, though much agitated and alarmed at the unpleasant occurrence. We succeeded in removing the foreign substance with very little difficulty, and having directed a cataplasm to be applied to the wound, we left our patient suffering but little. I have since learned that although she remained ill for some time with the disease which had required the use of the lancet, she suffered but little inconvenience from the wound, which healed kindly.

Accidents similar to that just described I have known to occur in the use of the spring lancet in several instances. A medical friend informed me not long since, that in bleeding with that instrument, in one instance the principal part of the blade broke off, and entering the cavity of the vein, was conveyed by the blood wholly out of reach, nor was it ever after seen or felt. It was truly surprising that no unpleasant symptoms of any kind resulted from it.

So many unhappy accidents result from bleeding, and when they occur, they are often so reproachful to the profession, that it becomes an interesting inquiry, with what instrument do we execute this operation with most safety? The spring lancet or phlegm is the instrument almost universally employed in this section of the country, and if it be not the most safe instrument, the dangers of its employment ought certainly to be exposed.

The injuries occasionally inflicted in bleeding, besides those which I have named above, are of four kinds: 1st. such injury of the vein as to give rise to inflammation: 2d. wound of the brachial artery, and the consequent production of traumatic aneurism: 3d. wound of a nerve and the production of neuralgia: 4th. wound of the brachial aponeurosis.

A little reflection must, I think, convince us that the first of

these accidents must more frequently arise from the use of the spring than from the employment of the thumb lancet. Dr. Dorsey, who advocates the use of the spring, urges in favor of his preference, that one may bleed very well with the spring lancet even although it may be dull; but that the thumb lancet cannot well be used unless it be keen. He therefore recommends the spring for general use, because the same care and expense are not necessary to keep the instrument in proper order. This, however, appears to me to be at best a very equivocal argument.

It is certainly important to open the tunics of a vein in such a manner as to inflict the least possible injury. Certainly then the use of an instrument not perfectly sharp is greatly to be deprecated, and any mechanical aid which enables us to use a dull one with facility is surely not likely to be productive of benefit. If inflammation of the vein in phlebotomy is to be dreaded at all, we certainly have reason to believe that it will more frequently arise from the use of an instrument so dull and rough as to lacerate and contuse in some degree the tunics of the vessel, as it penetrates. The thumb lancet cannot well be used at all unless it be in a degree sharp—much sharper and more smooth than the spring lancet ordinarily is.

There is also something in the manner in which the blow is struck by the spring, which is calculated to excite irritation in the tunics of the veins. The quickness and violence of the blow cause a degree of contusion to be inflicted upon the vein. The margin of the cuts are bruised by the quick impulse of the lancet.

The brachial artery I believe to be much more frequently wounded by the spring lancet than by the other. This instrument, if the spring be as strong as usual, will transfix all the parts which it is gaged to pierce. When once we have applied the instrument and touched the spring, we have no longer any control over it. But the thumb lancet, used by a careful hand, and introduced with the steady movement usually practised in the employment of this instrument, may be checked the moment we feel the vein to be penetrated, and the resistance overcome. In the use of the thumb lancet, even if we had transfixed the vein, it would require so much force to thrust the instrument through the brachial aponeurosis, that the operator would quickly

feel the necessity of checking his hand. But the spring lancet transfixes the aponeurosis with ease.

Wounds of nerves in the bend of the arm, caused by bleeding, are sometimes productive of neuralgia of a very serious character. Unquestionably this will more frequently occur if the wound be so inflicted that the nerve implicated shall suffer some degree of contusion, at the same time that it is divided. Now this is certainly liable to occur when the spring lancet is employed. I have seen several instances of this species of mischief from bleeding, within a few years past, and in every instance the operation has been performed with the spring.

With regard to the occasional injury inflicted upon the brachial aponeurosis, we are aware that this also often causes very serious mischief. The parts beneath the aponeurosis being wounded, blood is often effused beneath that membrane, and very often pus also becomes subsequently deposited; these putting this membrane in a state of tension, and creating a state of parts similar to that which occurs in paronychia. This pus and blood, (not readily finding vent at the small orifice made in the aponeurosis by the lancet, and the aponeurosis not readily ulcerating at any other point,) insinuate themselves beneath this membrane, and dissect it from the subjacent parts. This gives rise to a state of disease, which is often relieved only by making free incisions in the aponeurosis. But the aponeurosis itself, from being wounded, often puts on inflammation, and sometimes give rise to grave accidents. I have already explained why this membrane should be more frequently wounded by the spring than by the thumb lancet.

I had always been in the practice of using exclusively the thumb lancet until the year 1832, when cholera was epidemic in Baltimore. Till then no unpleasant occurrence of any kind had ever happened to me from bleeding. At that time I had very frequent occasion to bleed, and, as I often met with those who were reluctant to be bled with the thumb lancet, I procured a phlegm, and for a few days used it exclusively. Not a week elapsed before I caused by the use of it an inflammation of the vein, which gave both the patient and myself much vexation and anxiety. I then threw aside the spring and returned to my accustomed instrument, since which time there has occurred to me not the slightest evil of any kind after any instance of bleeding.

It appears to be generally believed that phlebotomy is performed with more ease to the operator with the spring lancet. But certainly the operation with the thumb lancet is not difficult, and may, by a little practice, soon be executed with ease and neatness by any individual. The above are the reasons which have created in me the conviction that the spring lancet ought to be wholly rejected by the physician and surgeon.

IV. *Case of Stricture of the Urethra strongly simulating Lithiasis.*—On the 25th of October last, I was visited by Mr. S. a highly respectable citizen of the District of Columbia, who desired to place himself under my care, for the purpose of having performed upon him the operation of lithotomy, he having the conviction that there existed a calculus in his bladder. This conviction was partly derived from the fact that, some five or six years before, he had passed several small calculi, and one of considerable magnitude. This last had traversed the urethra with great difficulty, and had remained lodged in the canal, at first at the bulb for several weeks, and subsequently near the middle of the spongy portion for a considerable time. At each of these points it had created much irritation and ulceration, and when at length the calculus was voided, these portions of the canal were left in an irritable state, which resulted in the production of permanent stricture at each. The symptoms also, under which he now labored, were such as might well strengthen the belief that a calculus existed in the bladder. His micturition was often difficult in the extreme, and accompanied with the most powerful throes of the bladder, and spasmodic action of the muscles of the abdomen. These involuntary efforts were indeed sometimes so powerful as to urge the blood strongly to the superior regions of the body, and to cause extreme sense of fullness and pressure in the head, and even effusion of blood from the delicate vessels of the conjunctiva. He informed me also that the stream of urine at these times was often suddenly arrested, as if by some foreign body falling, valve like, upon the inner orifice of the urethra.

But these were not the only grounds of his belief. He had been several times sounded by an intelligent medical gentleman, at a period when the urethra was pervious to the sound, and had been by him assured that a stone was present, he being confident that he felt a foreign substance in the bladder. He was

even so well assured of its presence, as to speak confidently of the magnitude of the foreign body.

There was absent in this case, however, the usual degree of the characteristic pain in the glans penis. Nor did the patient suffer so much irritation in the bladder from the motion of riding in a carriage, or on horseback, as is usual in case of stone. Nevertheless I examined this gentleman with the confident expectation of finding a calculus in the bladder.

On attempting the introduction of a catheter of ordinary size, I encountered a firm stricture about two inches from the orifice of the urethra. Substituting a smaller instrument, I passed this, and presently encountered another at the bulb. It was with a good deal of difficulty that I passed this stricture, though I used a small catheter with a conical point. On reaching the cavity of the bladder, and exploring its walls, I at first felt a sensation which induced me to believe that I had touched a calculus, but on more careful examination, I found that I was deceived. Some projecting substance the instrument evidently encountered, as I moved it from side to side in the organ; but I soon discovered that it was not an earthy substance, the peculiar grating sound and sensation being absent.

Being not yet assured, however, I gave no positive opinion, but intermitted any examination until the next day. I then provided myself with small steel sounds of various forms, some straight, others unusually curved. With these I explored the bladder with the utmost care. With the straight sound, which I found I could introduce with perfect ease, I felt nothing of the substance which I discovered during the first examination. But with one which was much curved I immediately detected it. It felt, when touched with the instrument, like some firm fleshy substance situated on the posterior part of the bladder. The patient was confident that it was the same substance which his physician had before felt and regarded as stone, because the sensations to himself were the same as when examined by him. I explored the bladder with the body in almost every variety of position—the horizontal—the erect—and the patient on his knees, the body being inclined forward. I also aided the search by the finger in the rectum; but the result was always the same.

By these repeated examinations much irritation was created in the urethra and bladder, and I was forced to discontinue the

use of all instruments for two or three days. The use of the sound, however, had in some degree dilated the strictures, so that at the end of this time, when the irritation had subsided, the patient discharged his water with far more facility than he had done for many weeks, and with but little of the painful and spasmodic effort with which it had before been usually voided.

To make assurance doubly sure in this case, I procured the advice and assistance of my friends, professor Geddings and Dr. Wright. These gentlemen carefully explored the bladder. Dr. Geddings came to the same conclusion to which I had arrived. Dr. Wright thought that he once or twice touched sabulous matter adhering to or enclosed in the tunics of the bladder, but was equally confident that there existed no calculus free in the cavity of the bladder.

As the patient had experienced much benefit from the partial dilatation of the strictures, and as the symptoms were such as might all arise from stricture of the urethra, I now became convinced that this had been the primary and important part of the disease now present. That lithiasis had once existed was manifest, but there was no evidence of its existence at the present time—not even in the chemical character of the urine voided.

I became satisfied also that the sensation communicated to the hand through the sound, arose from the point of the instrument encountering one of the enlarged fasciculi of the muscular coat of the bladder. The impediment which had existed to the flow of urine, and which had occasioned such violent and ineffectual muscular efforts of the bladder, must almost necessarily have produced the columnar condition of the inner surface of the bladder.

With this conviction I now, in the treatment of the case, directed my attention exclusively to the strictures, not however neglecting the general health of the patient. These I succeeded in rapidly dilating, so that at the end of two weeks a catheter of size larger than that ordinarily used could be conveyed into the bladder with ease. I now had the satisfaction of having my opinion confirmed by the result. My patient was entirely relieved of the distressing symptoms from which he had so long suffered. He could now pass his urine with a good stream, and without painful effort. He could also rest the whole night without experiencing that irritation of the bladder which compelled him to rise for the purpose of evacuating it, as he had

been for years obliged to do. All morbid feeling in the parts, indeed, was nearly dissipated, and his general health much improved.

I taught my patient to use the instrument upon himself, and having furnished him with graduated catheters for the purpose of effecting still further dilatation, I dismissed him with the confident expectation that he would remain exempt from the symptoms from which he had so long suffered, and that he will probably never be under the necessity of submitting to the operation of lithotomy.

This case is but one among many which establish, that symptoms supposed to indicate stone, are never to be confidently relied upon, and that the sound is the only safe criterion. It shews, too, that not every obstacle which the sound strikes in the bladder is to be regarded as stone.

ART. IV. *Observations on Spinal Irritation, by* RICHARD H. THOMAS, M.D. Lecturer on Obstetric Medicine, &c. Baltimore.

WITHIN a few years past, a greater improvement has probably been made in the pathology and treatment of nervous diseases, so called, than in any other of the classes into which the nosologist has divided the various maladies to which the human family is subject. And to nothing has this improvement been owing more, than to the attention which has been directed to the condition of the spinal cord, within that period. By directing our attention to this great centre of the nervous system, we are now enabled to explain satisfactorily, symptoms and phenomena which heretofore we were obliged to content ourselves by calling anomalous, nervous, or hysterical, as the case might be. It is not my intention now to dilate upon the great light which the investigations of Teale and others, have shed upon affections hitherto so obscure, but merely to introduce the relation of several cases, in which the advantages of a correct pathology were signally manifested. Among several of Rheumatism, I select the following:

CASE 1. *Acute Rheumatism of the Knee.*—Atchison, engineer, was first seen by me, *April* 23d, 1834. He had been exposed at night to cold damp air, and was seized three days before, with pain in his back and limbs, which soon fixed itself in the right *knee.* He has suffered severe pain for two days. Various do-

mestic remedies have been applied, and the knee is now much swollen and tender to the touch. He cannot move it without excruciating suffering. His pulse is soft; his skin bathed in sweat; tongue furred. I ordered him calomel and Dover's powder every fourth hour, and to be freely cupped over the loins.

24th. The pain is easier; swelling less; very little fever—Purge him with senna and salts;—calomel and Dover's powder at bed time.

25th. I found him sitting up. He had walked from the bed chamber into the sitting room, which was on the same floor, without pain. I did not see him again.

Remarks.—This man was subject to rheumatism, and had been under the hands of an experienced practitioner in a former attack, for several months. Whether under the same treatment in this attack the result would have been the same, it is impossible to decide.

Case 2. *Rheumatism. Spinal Irritation.—August* 24th, 1833. Mrs. C. about 40 years old, a fat robust woman, was exposed four days since to a current of air while heated with exercise. She laid on a bed with her back to the window. Next day she experienced pain in the back of the neck and head, attended with stiffness of the neck; the pain and stiffness, with partial paralysis, extended the following day down the left arm and hand. On the 23d the symptoms continued to increase. On the 24th, I first visited her. The most urgent pain is now in the left arm, of which she has nearly lost the use. Severe pain of the left side of the neck and head, increased by motion; tenderness of the cervical vertebræ on pressure; pulse full, strong, and vibratory. I bled her to twenty ounces with great relief; ordered a brisk purgative immediately, and gr. 15 Dover's powder at night. If the pain should return, to be cupped on the back of the neck.

Aug. 25th. Some return of pain last night. The pain of the arm with loss of muscular power continues; cervical vertebra tender; cup the spine to ten ounces; continue the purgative. 26th. Great relief after the cupping yesterday; some fever today, and return of pain; this morning the tenderness of the left side of the spine extends downwards to the 4th dorsal vertebra, and darting pains are felt through the left breast. Let her be cupped over the dorsal spine; and continue the other remedies. 27th. She was not cupped yesterday. Six or seven of the dor-

sal vertebræ are now tender. The pain through the left breast and side is more acute. She has been much annoyed by involuntary jerkings of the extremities. She was cupped to eight ounces over the back with great relief. Let her use a mustard foot bath at night, and apply a mush poultice to the spine. 28th. Entirely relieved from pain; a slight soreness only remains.

Remarks.—It is worthy of notice, that in this instance, the disease was confined to one side of the spine and body. Though general vascular disturbance required the use of general depletion in the first instance, the immediate and decided benefit which each time accrued from the local abstraction of blood, forms a very interesting feature in the case. The spinal affection, in this case, must have taken its origin from the direct impression of cold upon it; a fact which militates against the common idea, that it is too well protected by its coverings, to feel directly the influence of any external agents other than violence.

Case 3. *Threatened Paralysis of the right arm.—Nov.* 3d, 1834. Mrs. M. about 40 years of age, has for the last three or four weeks felt a numbness and loss of power in her right arm and hand. It commenced first with a pain in the shoulder, which gradually extended down the arm. She now has little pain, but the tingling and loss of power is increasing. She can with difficulty hold any thing in her hand, and there is a feeling of confusion in her head, with loss of memory. Her pulse is nearly natural,—not excited—temperature natural. A very decidedly tender spot is found over the fifth and sixth cervical vertebræ. She was ordered to take blue mass with extract colocynth compound, and to be freely cupped over the tender vertebræ. She took the pills, but owing to great aversion to the operation, declined being cupped for two days. In the mean time the symptoms of paralysis increased very much, until the 5th, when three cups were applied, and about five ounces of blood abstracted, with very great and prompt benefit. On the 6th, none of the symptoms remained but a slight tingling of the fingers. This continued for a week.

Remarks.—In this case, the whole catalogue of domestic remedies was had in requisition before I saw her. Frictions with red pepper and vinegar; mustard plasters till the arm was blistered, &c. &c. were used without the slightest good.

Case 4. *Spinal Irritation. Apparent Delirium Tremens.* *July* 17th, 1833. Mr. B. æt. 30, a master carpenter, fell into a cellar from the first floor of a house he was building. He was much jarred, but continued his work. I saw him at night. He complains of head ache; mind much confused; hands tremulous; cannot sit still; pulse feeble; skin moist; presenting the aspect of a case of delirium tremens. As his bowels were slow, I prescribed calomel with compound powder of ipecacuanha, *pro re rata.*

18th. He took ʒ i. Dover's powder through the night;—no sleep; mind in a state of alarm and agitation; pulse feeble. A purgative draught every two hours, till it operates. Evening: bowels freely moved, but little improvement; opiates and effervescing draught. Under the above plan, viz: opiates at night, and purgatives by day, he got some sleep. On the 21st, I took leave, though he was not entirely himself.

August 1st. B. came to me to request me to visit one of his family. Said he himself was well, except giddiness. His countenance was suffused and drunken. Declared that he had drunk nothing since his last attack; that he could not bear it.

Aug. 3d. B. has a return of his delirium; walks continually to and fro; pays no attention to what is said, unless he is forcibly made to do so. Says he is quite well one moment; the next complains of his head. Pulse is very soft and not full; the tongue tremulous; skin bathed in moisture; great thirst. His friends say he has never been himself since his first attack. The least jar distressed him, and his judgment has been impaired. I was still inclined to the opinion that the delirium was a consequence of intemperance; but his friends assured me that he was by no means intemperate.

Under these circumstances, I requested the opinion of a medical friend, Dr. Chapman. He believed that his present condition was produced by venous congestion, and advised the abstraction of blood, and free purgation. I opened a vein;—during the flow of blood the pulse rose, increasing in strength and volume: about sixteen ounces were abstracted, when he felt a little faint, and vomited, directly after which all the symptoms were removed. He became rational, collected, and tranquil; remembered nothing which had transpired during the two hours preceding—not even the presence of his physicians. From this time he recovered rapidly, returning to his occupation on the 5th.

Remarks.—Here was a case closely resembling delirium tremens;—the feeble pulse; tremulous tongue and hands; restlessness; the peculiar timid delirium which attends it, &c. &c.—so much so, that in the first instance it was treated as such,—improperly it is true. His intemperance was insisted on much to the surprise of his family. In the interval between the first and second attack, he looked very drunken; had several fainting spells; complained of great debility, and finally lost his reason; yet all these symptoms were promptly relieved by bleeding.

Sept. 11th. B. has been perfectly rational since Aug. 4th; but from the time he got the fall into the cellar, up to the present time, he has been subject to swoonings, which occur without warning,—sometimes several times in the course of the day; sometimes at night, even when in bed. At 4 P. M. to-day, while at work on a stair way, he was seized with one, and fell into the cellar, without apparent injury. Walked home to tea, at which his manner was odd; afterwards walked to a distant part of the city to escort one of his family home. On entering the room, he swooned and fell. Recovering from the swoon, he struggled convulsively and raved like a maniac. He was brought home in a hack, and at 1 P. M. I0 saw him. He is quite beside himself; recognises no one; pulse full, quick, and firm; skin hot; face flushed; tongue furred. Bled him to sixteen ounces; gave calomel and jalap; applied sinapisms to his ankles. 12th. Slept some; bowels freely moved; more composed, though still delirious; calls for his wife who is far distant. Let him have infusion senna and salts; a blister to the neck.

Sept. 13th. Symptoms aggravated;—violent delirium; pulse quick, without much force; tongue moist; eye injected; shrinks when pressure is made behind the left mastoid process; breathing is short and quick. Apply forty leeches to the temples, and cups to the neck; calomel and rhubarb every second hour. When the first cup was applied, and he saw the blood, he raved furiously, and imagined himself wounded in battle and taken prisoner. Forty leeches were applied to the temples, and an equal number to the back of the foramen magnum; sinapisms to the legs, which were cold. 3 P. M. Soon after the leeching, he became composed, was for an hour or two quite rational; now wanders; breathes better. 9 P. M. Much the same; give two cathartic pills every two hours.

Sept. 14th. Addressed me by name when I entered the room; *is much better;* quite himself when awake through the night.

Recollects nothing which has occurred since his last tumble. Directing my attention to the spine, I discovered two portions of it decidedly tender;—the lower dorsal and upper cervical vertebræ. Pressure near the foramen magnum occipitum excites pain, which shoots through the head. Apply forty leeches in the latter situation, and continue the cathartic pills. From this time he improved rapidly, and when he got out was no longer subject to fainting fits, and has since continued to enjoy good health.

This case is submitted without further remark, except that it very clearly exhibits the importance of a correct diagnosis. In the first attack, my opinion though apparently based on sound data, was incorrect, and consequently the treatment failed to give relief. In the second attack, a nearer approach was made to correctness, and more relief was afforded, though a very troublesome symptom continued. It was only when the pathology of the case was clearly understood, that it received that perfect relief to which it was entitled in the first instance.

Baltimore, Nov. 19, 1834.

ART. V. *Case of Tuberculous Degeneration of the Liver, with perforation of the Cæcum, extending into the iliac fossa.* By S. G. BAKER, Resident Student of the Baltimore Infirmary.

Catharine McMechen, aged 17, from Fell's Point, was admited into the Baltimore Infirmary, Sept. 16th, 1834. Has been sick two weeks. Was bled at the commencement of the attack, but has taken no medicine. She now suffers from irritability of the stomach—tenderness on pressure of the epigastrium—bowels constipated—pulse small and thready—tongue covered with a yellow fur, but red at the point, with a disposition to become dry—skin very hot—and general prostration very great. Cups were applied to the epigastrium. ℞ Proto-chlo. Hydrarg. gr. x.—effervescing draught every two hours, and the skin to be freely sponged.

Sept. 17. She seemed much improved in the morning, but the evening exacerbation was very violent—tongue dry. A dose of castor oil was administered, and sponging continued.

Sept. 18. A blister was applied to the abdomen in time to meet the exacerbation. ℞ Mass. Pil. Hydrarg. gr. iij. pulv.

Ipecac. gr. i. three times daily. She was very restless through the day and night, but the evening fever was very much diminished.

Sept. 19. The improvement continued. The fever, although slight, was still present. The medicine was discontinued.

Sept. 20. Very much improved—appetite returned, and she was allowed a more liberal diet.

This apparent improvement persisted, with the exception of frequent hiccough, and unpleasant eructations, until the 24th, when there was considerable irritability of the stomach—tongue covered with yellow fur—pulse small, frequent, and irritated. Continued moaning during sleep, and very great general distress. Cups were applied to the epigastrium. ℞ Mass. Pil. Hydrarg. gr. iij.—Carb. Sodæ gr. iij. three times a day, with the effervescing draught.

Sept. 25. She was somewhat improved. The medicines were continued. She rested very badly during the night, and on the 26th was very much worse. In addition to the intensity of her other symptoms being increased, her breathing was very hurried and oppressed. A large blister was applied to the epigastrium, and as soon as it had produced vesication, another was applied to the thigh. The spts. nitre with camphor was administered, but she sunk rapidly, and died on the morning of the 27th.

Autopsy, twelve hours after death. On opening the abdomen, the liver was discovered to be very much enlarged, and generally softened. On making an incision into its substance, it was found to be studded with large tubercles, in a state of disorganization. The greater part of that portion of the liver which was not involved in the tuberculous degeneration, was dissolved into a red semi-purulent fluid, which could be pressed from every part of the organ by the hand. The remaining part was very much indurated. There was slight enlargement of the follicles of the duodenum and stomach, with some inflammation, and several portions of the jejunum and ileum, three or four inches in length, were intensely red. There were a few patches of slightly enlarged glands in the lower extremity of the ileum. In the cæcum, there was an ulcer, which had perforated its walls, and extended, in the form of an abscess, along the iliac fossa, for about three inches. The adhesion between the coat of the intestine and the internal surface of the walls of the abdomen was very firm and well defined. There was no appearance of inflammation elsewhere in the cæcum or colon.

SELECTED PAPERS.

Facts in Surgery and Legal Medicine. By M. DUPUYTREN, collected and published by M. M. PAILLARD and MARX.

I. *Amputation of the foot by Chopart's method.—No dislocation of the heel backwards.—Perfect freedom of motion.—Remarks on this method of operating.*

AN individual named L'amiral, aged about forty years, presented himself at the consultation of the Hotel Dieu, on the 23d September, 1834. About eight years anterior, a heavily laden wagon had passed over his foot, crushing the toes and producing a comminuted fracture of the metatarsal bones. Amputation was not deemed necessary, and the injury was cured without the operation, except that numerous fistulæ remained in consequence of the retention of the necrosed fragments of bone. The constant chronic inflammation and the tumefaction of the soft parts upon the whole of the instep, together with the pain and profuse suppuration, determined him to enter Hotel Dieu, where M. Dupuytren practised the partial amputation of the foot according to Chopart's method. The patient was perfectly cured and left the hospital; but returned on the 23d September, complaining of violent pain about the heel and along the calf of the leg, as high as the ham. There was neither redness nor tumefaction, and the pain was considered rheumatic.

Prescription.—The member to be enveloped in flannel, and to have repeated frictions applied with *nervous balsam*, having dissolved in each pound, half an ounce of subacetate of lead.

Remarks.—The most interesting circumstance about this patient, was the condition of the stump. It possessed perfect freedom of motion; there was no dislocation backwards; no pain, tumefaction, or excoriation;—the cicatrix was firm and healthy, and the individual was able to walk with facility and without much fatigue. Every individual present at the consultation was able to judge how ill founded, in many cases at least, are the fears entertained by some practitioners, of the result of amputations of the foot according to the method of Chopart, in which the only bones preserved are the astragalus and calcis. An opinion very commonly entertained is, that the heel becomes so much thrown backwards after this operation, as to render it impossible to stand upon it. This fear is certainly very much exaggerated. In many cases, besides that of

L'amiral, the history of which we have traced, the stump was susceptible of free flexion and extension, and with some, the power of walking was so little impaired, that at first view the extent of the loss could not be suspected. M. Blandin, (*Dict. de med. et de chirurg. Pratiques,*) has made the same remark. He inquires if the advantageous results he has obtained, may not be owing to his precaution, always to make a small dorsal flap, and to preserve a greater extent of the flexor tendons of the foot. If this be really the case, that course of procedure should never be neglected.

II. *Caries and necrosis of the lower extremity of the Femur.*

There is a form of caries and necrosis of the lower end of the femur, unattended with any alteration of the articulating portion of it which enters into the formation of the knee joint. This affection has not been described in the books, and its treatment is exceedingly difficult, while its consequences are sometimes very formidable. A young woman, aged twenty-four, of the name of Noiret, recently presented herself at one of M. Dupuytren's consultations on account of this disease, and her case elicited the following remarks. She was a resident of the country, and her constitution was vigorous and robust. On the outer side of the thigh, towards its inferior part, there were several fistulous openings, which were about four fingers' breadth above the joint. They had existed for several years, and supervened upon pain, tumefaction, and an abscess which formed in this region, and opened itself spontaneously. A probe passed into them came in contact with diseased bone. Individuals who are most liable to this affection are of the lymphatic temperament. After a fall or a blow upon the lower part of the femur, and often without any manifest cause, a deep seated pain is experienced in the lower part of the thigh; the member becomes swollen; walking is difficult and painful, and the leg is flexed upon the thigh. Leeches to the part, general blood-letting, baths, emollient applications, &c., afford but little or no relief. Abscesses of various size, form, and either open spontaneously or are opened by the surgeon; and when opened they are apt to remain fistulous. These fistulæ heal up and break out alternately, according to the condition of the bone, and they are often interminable, occupying either the ham or the lateral parts of the thigh. Anti-scrofulous remedies produce no good effects in the treatment of this disease. It continues, even after the system has been completely modified or altered, and a cure can only be effected by the destruction of the caries, and the detachment and escape of the necrosed portions of the bone, which are imprisoned, as it were, in the femur. A fragment of dead bone, not larger than the little finger, will be sufficient to perpetuate the fistulæ during the entire life of the individual, if not extricated.

Should the situation of the disease be favorable, it may be removed by

an operation. When, however, it occupies the posterior part of the femur, no operative procedure can be resorted to, on account of the danger of implicating the important blood-vessels and nerves;—obstacles nearly equal will be encountered upon the inner side. The disease can only be successfully attacked upon the outer side of the member, and may be here removed by the mallet and gouge, or detached by some other method.

It is important to distinguish this necrosis of the lower end of the femur attacking the compact substance of the bone, from that which affects the spongy structure constituting its articulating extremity,—the latter being a disease of an entirely different nature.

III. *Tumefaction of the cellular tissue of the eyelid, and its treatment.*

A healthy young woman presented herself at the consultation of M. Dupuytren, on the 1st September, 1833, affected with a tumefaction of both her upper eyelids, which had existed from birth. An examination revealed neither tumor, or acute or chronic inflammation. M. Dupuytren remarked, that the disease consisted in a superabundance of cellular tissue, which contained an unusual quantity of serosity. He proposed the extirpation of this tissue as the only remedy.

This species of tumefaction of the lids constitutes a disagreeable deformity in females, and in some cases, it may even become an obstacle to vision. External applications are inadequate to remove the disease, and a cure can only be effected by the extirpation of the cellular tissue, and with it, more or less of the skin. M. Dupuytren remarked, that he had, in several cases, succeeded in curing the disease by adopting this plan. But although the deformity was remedied, some irregularity of the visage remained; the obstacle to vision was, however, effectually removed.

IV. *Cancer of the lip.—Operation,—at first successful.—Re-development of the disease upon the angle of the jaw.—Practical remarks on the recurrence of cancerous affections.*

A man, aged upwards of sixty, attended the consultation at Hotel Dieu, September 18th, 1833. About two years previous he had been operated on in the hospital, for a cancer of the lower lip. By means of a semilunar incision made with a pair of strong scissors, a mode of operating adopted for a length of time by M. Dupuytren, the whole of the cancer was removed. The part healed promptly, and continued well for two years. The patient returned to the hospital on the 18th of September, on account of a renewal of his disease, not at its original seat, but upon the angle of the jaw. This new tumor was as large as the fist, and the patient, a stout robust individual, wished to have it removed.

Would it be proper to attempt the removal of the disease? Should the re-development of the disease not be apprehended? The tumor is mov-

ble at its base, and does not seem to extend to a great depth. The skin is healthy and glides freely upon the surface of the tumor, and there are no diseased lymphatic glands in the vicinity. M. Dupuytren recommended an operation, but after several days reflection, the individual left the hospital.

M. Dupuytren remarked, that he had seen cases of cancerous affections, in which the disease was renewed two, three, or even four times, yet after the fourth operation, there was no recurrence of the disease. Sometimes, indeed, I have proceeded to extirpate cancers where there were evidences of a general cancerous diathesis; but when the individual has two organs simultaneously affected, an operation should not be performed, because, under such circumstances, a renewal of the disease will certainly take place, and an operation performed upon one, will only tend to hasten the degeneration of the other. Thus, in the case of a female, who has just left the hospital, affected with an ulcerated scirrhus of the right breast, I was about to proceed to an operation, but on exploring the other organs, I discovered that the neck of the uterus was affected with the same disease, and consequently desisted from operating upon the breast, lest the disease of the uterus should be aggravated.

There are other cases in which the re-development of the disease is certain, or almost certain, yet it may be proper to resort to an operation with the view of prolonging the life of such individuals, where they are threatened with death from other accidents. Such was the situation of an old woman, who in August, 1833, attended the consultation of Hotel Dieu. She was affected with an open cancer on the middle anterior part of the thigh, which constantly poured out such an abundance of bloody discharge, that her strength was completely exhausted.

When she came to Hotel Dieu, she was completely exsanguined, from the perpetual loss of blood; and there was besides considerable engorgement of the glands of the groin; her face was of a sallow complexion, and she was laboring under an evident cancerous cachexy. As the constant loss of blood was rapidly exhausting the energies of the patient, I resolved to extirpate the tumor; which was small. The operation was accordingly performed, although there was every reason, nay almost a certainty, for fearing a renewal of the disease, either in the cicatrix, or at some other point. The wound, nevertheless, healed promptly; the patient recovered her strength and appetite, and left the hospital apparently cured. Here then is a case, and there are others of a similar kind, indicating the propriety of departing from the maxim generally prescribed, that an operation should not be performed when there is reason to apprehend a renewal of the disease, and which positively interdicts the knife when the individual is affected with that condition of the system which is denominated *cancerous cachexy.* Extirpation is besides capable of prolonging life, in cases where a renewal of the disease is inevitable,

or nearly so. If in some cases an operation tends to hasten the disease, (and that it sometimes has that effect, cannot be denied,) it sometimes suspends the extension of the general infection. One of us has heard M. Dupuytren reproached at the consultation, for having removed a cancer of the neck of the uterus, which recurred at the expiration of about a year afterwards. M. Dupuytren very justly demands, if a year's existence is to count for nothing!

In some instances, the malady is suspended for a much longer period. Such was the case of a woman who came to Hotel Dieu early in September, 1833. This woman, aged upwards of fifty years, had had a cancerous tumor of the size of a pigeon's egg, removed about nine years before from the lower part of the fore-arm. About nine years afterwards, another tumor made its appearance in the upper part of the cicatrix. This tumor had attained the size of a common nut, and M. Dupuytren advised its removal. Here then is a case, in which a cure was effected during nine years, and we could furnish others, in which the disease has been suspended by an operation for three, four, five, or six years.

There are cases which furnish exceptions to rules of practice apparently the best established. Thus, in primitive or consecutive cancer, associated with an engorgement of the lymphatic glands in the vicinity, the established maxim is to remove the primary disease first, and subsequently the secondary tumors. In the following case an opposite course was pursued.

A curate, from Orleans, presented himself at the consultation of Hotel Dieu, on the 15th October, 1833. He had been for some years affected with a cancerous ulcer upon the inner surface of the left cheek. It had been extirpated by a surgeon of Orleans, but at the expiration of a few months the disease returned, and was extirpated a second time, and the part afterwards thoroughly cauterized with the hot iron. It nevertheless reccurred a third time, and was on this occasion associated with an engorgement of the lymphatic glands situated behind the angle of the jaw. This lymphatic tumor was about the size of a large pigeon's egg, when the patient came to consult M. Dupuytren. It was hard, sensible to the touch, and was from time to time the seat of lancinating pains. M. Dupuytren advised extirpation and cauterization of the cancerous ulceration within the mouth, and the removal of the diseased gland. He remarked, that in this case, the prescribed rule which directs that the primary affection should be first removed before we interfere with the secondary tumor, should be departed from, since by extirpating the latter first, the mouth can be more freely opened, so as to give a more satisfactory view of the affection of the cheek, and admit of its thorough destruction. In some cases, indeed, I have been compelled by particular circumstances, to remove in the first place, the diseased glands situated in the vicinity of the cancer, and to refrain from the removal of the latter

until some time afterwards. In many such cases, I have by this procedure succeeded in limiting the disease to its original seat, and have subsequently obtained a successful eradication of it. It is thus true, as I have remarked, that the best established practical precepts admit of exceptions. This case of the curate is a proof. It is necessary in consequence of the situation of the disease, to remove the secondary affection previously to interfering with the original disease.

V. *Nervous symptoms simulating pregnancy.*

It not unfrequently happens, that females experience equivocal symptoms of pregnancy without being in that situation. Cases sometimes occur in which they represent that they have felt the motion of the child;—where there is obstinate nausea and vomiting; suppression of the menses for months; enlargement of the mammæ, and tumefaction of the abdomen; yet the uterus contains no fœtus.

Uterine tympanites; hydatids; simple or encysted dropsy of the uterus, the ovaria or the fallopian tubes; chronic engorgement of the uterus; fibrous, mucous, or vesicular polypi; retention of blood, the menses, &c. &c., constitute so many conditions which may be mistaken for pregnancy. Authors cite many examples of such mistakes, and give directions for avoiding them; yet there is a condition which has not been sufficiently noticed: we allude to *nervous pregnancy*, which after having inspired complete illusions, vanishes without any evacuation.

A lady of high rank in society, was affected in this way. Her abdomen became suddenly very much enlarged, and an ovoid, elongated, circumscribed, moveable tumor was perceptible, which exactly simulated an impregnated uterus of five or six months. This condition continued eight or ten days, and disappeared promptly in the course of twenty-four hours. Her husband accused her of infidelity, which imputation she strenuously repelled. M. Dupuytren examined her and perceived the tumor, but remained in doubt. At a subsequent exploration made some days afterwards, by request of the lady, he could not discover any vestiges of the tumor. The uterus had resumed its natural volume and situation, although no evacuation had taken place, either by urine, stool, or the vagina. Ten days afterwards the same symptoms were renewed, and were again as promptly dissipated.

Within a short time, 1832, a young female, the daughter of a magistrate of one of the departments of France, came to Paris to consult M. Dupuytren. She was affected with a similar intermittent development of the uterus. Two physicians of the country had been consulted in her case, one of whom suspected a fibrous tumor of the uterus, while the other remained in doubt. After a few days continuance, the tumor generally disappeared, especially when she took much exercise on foot, or rode on horseback, &c. Its disappearance, however, was not attended

with any evacuation by urine, stool, or by the vagina. This case was evidently of the same nature as the preceding.

Remarks.—From these facts it is manifest; that the uterus may experience a kind of development, dependent upon causes purely nervous, and which may appear and disappear very suddenly. These nervous enlargements of the organ probably depend upon fluxions and congestions of gaseous fluids, which are as promptly absorbed as they are generated. They are independent of any repletion or engorgement of the walls of the uterus, or of the presence of any foreign body within its cavity, and have been represented by Madame Boivin, to consist of a kind of *erection* of this organ.

In corroboration of our remarks, we may cite a case observed by M. Velpeau.

A lady, aged thirty-eight, who had not had a child for twelve years, and who was exceedingly anxious to become a mother from the man with whom she was associated, called upon M. Velpeau in 1823, to prevent an abortion with which she supposed herself to be threatened. According to her own account, her pregnancy had reached the fourth month, and the size of the abdomen, together with the sympathetic disturbance which she experienced, seemed to corroborate the justness of her statement. She had experienced, as she conceived, the motion of the child, and the sanguineous discharge which occasioned her alarm, had been provoked by violent exercise. In about two days her fears were calmed; but were again renewed in the course of two months. To them new hopes succeeded. The desired term at length arrived; parturient pains took place; a skilful midwife was engaged, and attended the patient who was overwhelmed with joy; and three days of severe suffering passed away, without the labor making any progress. M. Velpeau was called, who, on making a proper examination, found the neck of the uterus, as well as the whole of the organ, in its natural state. He therefore pronounced that the lady was not pregnant, who displeased with his opinion, gave him his dismissal. M. Velpeau learnt, that four days after this period, the abdomen subsided, without any discharge taking place, and that the health of the patient was restored.

VI. *Mucous discharge from the vagina of female children.—Presumption of rape.—Report on this subject.*

An individual of the name of Strazakier, brought his female child to the consultation, September 20th, 1833, on account of a copious mucous discharge from the vagina. The external genital parts were red, tumid, and painful. The father feared that violence had been inflicted upon her by a neighbor, whom the child had visited for several days in succession, and who frequently had her with him under various pretexts. She was examined attentively, and M. Dupuytren could not discover any excoria-

tion or laceration, and the hymen was perfect. He tranquillized the father, assuring him that no rape had been consummated, and as regards any attempt that may have been made, there was no positive evidence, since the genital organs were merely affected with inflammation, which may have proceeded from other causes than external violence.

Mucous discharge from the vagina of small children is very common, and few days pass without cases being presented at the consultation of M. Dupuytren. Sometimes, indeed, the affection prevails epidemically.

On the 18th December, 1828, Madame —— brought her little daughter, aged seven years, to the consultation of M. Dupuytren, on account of a profuse greenish colored discharge which had taken place from the vagina for a few days, without any manifest cause. The genital organs were found red, tumid, and painful, and pain was experienced in passing urine. M. Dupuytren, after a careful examination, could discover nothing but a catarrhal inflammation of the parts, and remarked at the time, that probably in the course of a few days other cases of the same kind would be brought for advice. This prediction was verified; several were presented, and were treated by baths, demulcent drinks, frequent emollient lotions, and were promptly cured.

The following is a report made to the faculty of medicine, in June, 1815, by a commission, on a question of rape on a child aged fourteen or fifteen months. The commission was composed of M. M. Roux, Dubois, Desormeaux, and Dupuytren.

The counsellor of state, the prefect of police, has demanded of the faculty of medicine, by letter bearing date 19th of this month, whether a female child, aged from fourteen to fifteen months at the extent, could be prostituted, and especially, the opinion of the faculty in relation to the validity of the testimony of M. G——d, doctor of medicine, interne of the hospital Beaujon, who has testified, "that the hymen of the child was lacerated, and that the injury had the appearance of being recent."

We shall not examine how far the perpetration of such a crime would be practicable; since it will be for the proper tribunals, to collect and appreciate such evidence as may tend to establish the possibility; neither shall we pretend to decide whether a rape could be consummated upon a child of the age of fourteen or fifteen months. Inasmuch as in such cases, the attempt at violence is as culpable as the consummation of the act, it will only be necessary to decide if the genital organs of the child presented to the examination of the professional witnesses, offered evidence of the violence which is supposed to have been committed.

Doctor G——d attests, that the hymen was *ruptured;* that the rupture *seemed* to be recent, and that the labia major and minor *seemed* to be inflamed.

The certificate of doctor G——d contains no other fact. The decla-

ration of M. N. surgeon-accoucheur, contains still less; from whence it results, that the fact to be decided by the faculty is, whether a rupture of the hymen which presents the *appearance* of being recent, and which *appeared* to be accompanied with inflammation of the labia major and minor, is a proof of violence inflicted upon these parts.

A few statements will show how far these facts are valid.

There scarcely passes a year in which there are not brought to the hospital consultations, during the cold and damp seasons, and while a catarrhal constitution prevails, a greater or less number of female children, affected with a puriform, and sometimes sanguiniolent, discharge from the vagina; tumefaction and even ecchymosis of the labia; destruction of the hymen; fever, and various other symptoms, which it is not necessary to indicate, since this is not called for by the certificate, the value of which we have to examine. It should be remarked, that some of these children are brought to the consultations under the impression that they have been victims of violence; that some affected with the symptoms above indicated are still at the breast, and have been at no time left alone by their mothers; and finally, that the greater number of these have never been from under the observation of their parents, and consequently no suspicion of the kind has been entertained. As the great number of such cases attests the existence of some general cause, operating upon many individuals at the same time, it is manifest that the production of the disease cannot be attributed to one so special and extraordinary, since if violence were inflicted upon so many children at the same time, the circumstance could not escape general observation, and the investigations so deeply interested in its detection.

If now we inquire into the value of the facts stated by M. G——d, it will be seen, 1. that rupture of the hymen may be produced by a great variety of different causes: 2. that it is impossible, whether the rupture appear recent or of long standing, to determine by which of these causes it has been produced: 3. that inflammation of the labia major and minor, being the effect or consequence of all inflammations of the external parts of generation, cannot be considered a proof of violence: 4. that ecchymosis is frequently a consequence of inflammation affecting vascular tissues, like the labia major and minor: 5. that the same is true of all the other symptoms of catarrhal inflammation of these parts, these symptoms neither indicating the nature of the malady, or revealing the nature of the cause producing it. Thus it is, that greenish, or bloody discharge, indicates rather a degree of inflammation, than the cause by which it is produced; that the ecchymosis even of the external parts, tends as much to prove the intensity of this inflammation, as the infliction of external violence; that the dilatation of the orifice of the vagina may be as much an effect of relaxation, as of an effort to introduce a foreign body into that canal.

It would not be proper to affirm, that the symptoms reported by M. G——d, and those which he has omitted to report, but which we have indicated, may not have been produced by external violence. Caution should be observed, however, in concluding that a fact exists, merely because it is possible, especially in cases like the present, when the conditions may be produced by so great a diversity of circumstances, and when a hasty conclusion might compromit the honor, the liberty, and even the life of a human being. In all cases, when the causes of a disease are not inherent in the parts affected, where, as in certain wounds, and particular kinds of poisoning, the cause cannot be rendered palpable, conclusions should be formed with great caution, and it should be left with the tribunals to investigate into, and discover, the causes of the disease in the previous circumstances of the case.

As, therefore, the condition of the child in whose case the opinion of the faculty is requested, may depend upon a variety of causes, we think proper merely to certify, that the child was affected with a catarrh of the external genital organs, without offering any decision in regard to the cause of the disease.

It will be found by a reference to authors, that many of them have noticed these discharges from the vagina of young children, and that mothers have often experienced great uneasiness in regard to them, apprehending that their children have been the victims of violence from some libertine. Thus Raulin, Hardwig and Werner regard the leucorrhœa of children as hereditary; and Denis (*Recherches sur les maladies des enfants*) has remarked, that females affected with leucorrhœa, are frequently delivered of children, either laboring under this disease, or a puriform discharge of the eyelids.—*Journal Hebdomadaire, No.* 21 *Mai*, 1834.

Re-union of a portion of the thumb entirely separated.—M. Beau, intern at Salpetrière, observed this case, the principal points of which he recapitulates in the following manner: 1st. September, 7, 1833, the extremity of a thumb entirely divided about the centre of the nail, after having been separated from the body for more than half an hour, was replaced and maintained by straps of adhesive plaster. 2d. The 15th, that is, eight days after, the extremity was found re-united by an adhesion, which, although weak on that day, was much more solid on the 18th. 3d. The nail and epidermis separated from the subjacent parts, and leaving denuded the end of the phalanx necrosed, retained in its place by a slight eschar adhering to the soft parts, which alone are vitally re-united to the corresponding soft parts of the finger. 4th. 21st. The necrosed bone removed: the eschar, not detached until the 23d, cicatrization complete on the 27th, twenty days after the separation of the extremity of the thumb, and six days only after the first appearance of pus.—*Revue Médicale.—Dublin Journal, July*, 1834.

REVIEWS.

Admonere voluimus, non mordere.——
Sunt bona; sunt quædam mediocria, sunt mala plura.

Das Quecksilber; ein Pharmakologisch—Therapeutischer Versuch, von Dr. Ludwig Wilhelm Sachs, &c.

An Essay on the Pharmacological and Therapeutical properties of Mercury. By Ludwig Wilhelm Sachs, M.D. &c.

(Concluded from page 143.)

In the last number of the Journal, we attempted to offer some of the views entertained by professor Sachs, in relation to the properties of mercury, and its modus operandi in the cure of disease. It was then remarked, that he assumes as a fundamental axiom, that mercury is not a direct antiphlogistic, in the strict sense of the word, but that its efficacy depends upon its power of enfeebling the acts of nutrition, or impairing the plastic energies of the organs of vegetative or nutritive life. In recurring to his labors on the present occasion, we do not propose to follow him through all the arguments by which he attempts to sustain this assumption, but to present a few of his observations relative to the application of this agent to some forms of disease.

1. *Inflammation of the sensitive system.*—This is divided by the author into two orders, according as it effects the cerebro-spinal nervous system, or the ganglionic.

In acute inflammation of the brain and spinal marrow, he remarks, mercury is not demanded, neither is it well borne by the disease. There is nevertheless, he admits, a period in the progress of the malady, when it assumes a chronic form, at which the article will be found efficacious, as well in overcoming the existing affection, as in preventing the mischievous consequences to which it is apt to give rise. In *sensible inflammation* of the *ganglionic system*, however, in which the nerves which direct and control the acts of nutrition are affected, and where consequently, an excessive action of the nutritive forces is developed, mercury seems to be strongly indicated as a means capable of exercising a direct curative influence upon the disease. Prefessor Sachs has nevertheless endeavored to shew, that the very acute forms of this disease are associated with conditions, as in the *causus*, *febris ardens*, *erethismus universalis vehemens*, which render the remedy decidedly mischievous, while the affection retains that character. It possesses great efficacy, howeve-

in the chronic forms of inflammation of the ganglionic system, and the author observes, that combined with digitalis, he has seen it productive of the most happy effects, in controlling the process of tuberculous degeneration. We can conceive of its being useful under such circumstances, but if not administered with great caution and discrimination, and in very minute doses, we are satisfied it will prove highly mischievous.

2. *Irritable Inflammation—Arterial Inflammation*, when it exists under a very acute form, the author thinks cannot be benefitted by mercury, but may be much exasperated by its administration. In this form of the disease, the principal reliance must be placed upon blood-letting, and the greater the character of acuteness or intensity manifested by the malady, the less will be the benefit conferred by the administration of the article. In the chronic forms of arterial inflammation on the contrary, it is capable of producing the happiest effects;—so much so, indeed, that the author lays it down as a fundamental axiom, "that the moderate local abstraction of blood, together with the judicious administration of mercury, constitute the perfection of therapeutics in the treatment of chronic *arterial inflammation.*"

In *venous inflammation* mercury should only be administered in the acute forms of the disease, and during the early stage. Nor can it be continued long even under those circumstances which admit of its employment, on account of the great tendency there is in this form of disease to the rapid development of a general dyscrasy or impairment of the solids and fluids. Great circumspection must therefore be observed in resorting to it, and in all cases, except were the organ affected possesses great plastic power, as for example the liver, it will be necessary, in order to obviate its mischievous consequences, to combine it with opium. Mercury is seldom admissible in chronic venous inflammation, and must never be employed in that form of the disease, except when the constitution possesses considerable plastic energy, and even then with great caution.

Inflammation of the *capillary system* is divided into two orders, according as it effects the arterial or venous capillary vessels. To the first, he refers rheumatic inflammation; to the second, erysipelas. A complication of the two, he supposes constitutes scarlatina, which presents the benign or malignant character, according as the arterial or venous system of vessels are affected. In both, however, the inflammatory process, at least at its commencement, possesses more or less energy, and the character of the disease is not determined by the constitution. Gangrene, however, is an affection of both the arterial and venous capillaries, which derives its character, 1st. from the simultaneous implication of both these systems; and 2d. from an impairment or profound deterioration either of the whole system, or of the parts affected. When by the powers of nature, or the assistance of art, the disease becomes entirely transferred from the

venous to the arterial capillaries, suppuration supplants the gangrene; but where the reverse takes place, and the morbid process gains the ascendency in the venous capillaries, then the gangrene runs into sphacelus. If these explanations be true, it will be readily conceived how inappropriate mercury is as a remedy for gangrene, and those who employ it under such circumstances, will soon have occasion to see its mischievous effects.

As regards the employment of mercury in the treatment of fever, it will be seen from the propositions laid down by our author, that it is not applicable to that class of diseases. He defines fever a disease, which consists in reaction, taking place in an organism, the vital powers of which are enfeebled; hence as the effect of mercury is to give rise to an impairment of the plastic forces of the system, it cannot be properly administered in the treatment of fever, in which these powers are already depressed. He thinks there is an essential difference between fever, properly so called, and inflammation. In the former, the plastic energies of the constitution are so profoundly impaired, that a rapid emaciation and failure of the powers of life take place, while in the phlegmasiæ proper, the nutritive or plastic forces are frequently exalted, and require to be reduced, in order to restore the system to its healthy state. He therefore enjoins the necessity of not confounding these two classes of affections, which he thinks is often done, and remarks that scarlatina, rheumatism and typhus contagiosus, which are generally classed with the idiopathic fevers, are inflammations.

In some of his inferences upon this point, we think professor Sachs has been influenced more by hypothesis than actual observation, and although we are disposed to agree with him, that mercury often does harm in the treatment of many diseases denominated essential fevers, abundant observation has convinced us, that there are forms and stages of those diseases, in which it is capable of doing much good. Nor are we disposed to agree with him in the distinction which he attempts to draw between fever and inflammation. We are, on the contrary, inclined to regard the two conditions as one and inseparable;—at least, we cannot conceive the existence of fever, except as a sequence, either of inflammation proper, or of its prodrome,—exalted irritation of some part of the organization.

Professor Sachs makes some very judicious reflections relative to the administration of mercury in syphilis, and particularizes, with much judgment and discrimination, the various forms and conditions of that disease, in which the remedy is most eligible, as well as those which can be successfully treated without it. He regards it as an affection implicating profoundly, the system of vegetative or nutritive life; hence, as mercury has a direct tendency to reduce the preternatural activity of the plastic energies of the organization, it suggests itself as the most efficient

remedy for the treatment of syphilis, when not associated with some accidental condition of the system, contra-indicating its administration.

All the primary local syphilitic affections, can, he thinks, be with certainty managed without mercury. Yet it is incontestible, that many of them can also be cured by the use of that article, when administered with proper judgment. The former method, however, should always be preferred, when the constitution is of a character likely to be injured by the use of mercury, as for example, in cachectic habits, and those endowed with a putrid diathesis, &c.

General syphilis, where it has become chronic, he admits may be benefitted, or partially relieved, without the use of mercury; yet he subjoins, that it is questionable, in the present state of our knowledge, whether the disease can, where it presents itself under a form of considerable intensity, be effectually cured without the agency of that remedy. The judicious and prudent administration of mercury under such circumstances, he considers by far the most effectual and prompt means of relief. The disease may, nevertheless, exist in an impaired or broken down constitution, a cachectic habit, &c. which as strongly contraindicate the employment of mercury, as the syphilis itself calls for its employment under other circumstances. In such cases, it must not be resorted to until the condition of the system has been improved by other remedies.

Finally, in the complication of mercurial cachexy with syphilis, which is frequently induced by the long continued and reiterated employment of this article, and especially when with this condition is associated a predominant leprous taint, the complex morbid process can be much more safely and effectually combatted by a simple non-mercurial course of treatment, than by the agency of that potent article. In both these cases, nevertheless, after a favorable change has been wrought in the constitution by other remedies, mercury may be advantageously resorted to, for the purpose of eradicating the remains of the syphilitic affection.

These principles are, we think, corroborated by the experience of all who have been much engaged in the treatment of this disease, and daily observation furnishes unequivocal evidence of the irreparable mischief which is too frequently inflicted by a neglect of them.

In the treatment of scrofula, induration of the lymphatic glands, and obstruction and induration of the larger glandular apparatus, he thinks, mercury a valuable remedy, when directed with proper judgment, and resorted to in proper stages of those diseases. When they are, either at their commencement, or in their progress, associated with, or dependent on, chronic inflammation,—or when they are sustained in anywise by a nervous affection, influencing the relative activity of the nutritive energies; mercury will be found capable, under a properly directed administration, of doing much good. But when they are connected with a state

of atony, whether it precedes their development, or becomes associated with them as a consequence, mercury will be improper, and especially, when any tendency to *colliquation* is manifested.

In the treatment of many of the affections of the mucous membranes, our author speaks in very favorable terms of the efficacy of mercury. In what he denominates the irritable arterial inflammation of these tissues, he remarks, that after proper blood-letting, mercury displays very salutary powers, and is decidedly the most effectual remedy that can be employed. Its efficacy is not only displayed in its virtues as a cathartic, in the treatment of croup, but in its peculiar faculty of modifying the physiological as well as the pathological acts of the nutritive function—in laryngitis, tracheitis;—in a simular affection of the mucous membrane of the stomach and intestines, as gastritis and enteritis; also in cystitis, urethritis, metritis, &c. &c. its virtues are so fully displayed, that it may be regarded as almost indispensable in the treatment of those diseases. When they have reached a certain development, professor Sachs thinks it is a mistaken notion to suppose, that blood-letting, in any form, or to any extent, can render the employment of mercury superfluous. The former may be often necessary to prepare the system for the salutary operation of the latter, but after this is done, the mercury will accomplish what blood-letting cannot. In its employment, however, great attention will be required, as well in relation to the strength and the quantity of the article administered, and the length of time it is continued, as to its proper combination with other remedial agents.

Catarrhal inflammation of the mucous membranes does not, on the other hand, demand the employment of mercury; and the great facility with which this species of inflammation passes into the irritable arterial inflammation of the mucous membranes, together with the difficulty of distinguishing between the higher degrees of catarrhal inflammation and the latter, occasion the practitioner considerable embarrassment in deciding, when local blood-letting and mercury are indicated in this class of affections, especially in young children. Those children, however, who manifest a considerable plastic power of the system, bear these remedies well, and when directed with proper caution and discrimination, they will often render valuable assistance, in restoring to their proper standard, the disturbed acts of the nutritive functions.

The author next goes on to speak of the administration of mercury in the treatment of hypertrophy of the mucous membranes; nasal polypi, blenorrhœa, colliquation and ulceration of the mucous tissues, the exanthematous diseases, and in affections of the liver. His observations on the last subject are extensive and highly valuable, and we regret, that for want of room, we cannot enter into an analysis of them.

Having considered the various diseases, and their different states, to which mercury is applicable, he next proceeds to discuss the different

methods of administering the article. The advantages and disadvantages of each are duly considered, and the several modifications of disease in which one or the other should be preferred, are carefully pointed out. We have no where met with so full a critical examination of the subject, and we regret that the judicious observations of the author, in consequence of their being contained in a language, unfortunately too little understood by the mass of the profession in this country, are placed beyond the reach of a majority of our readers.

The last portion of the book is taken up with a description of the different preparations of mercury, the properties and doses of each, and an enumeration of the indications which they are capable of fulfilling. Like the preceding parts, it displays the practical good sense and sound judgment of the author, and abounds with valuable therapeutical observations. The whole work, in short, possesses much value, and although professor Sachs frequently manifests a predilection for the subtle distinctions, and hair splitting definitions, for which many of his countrymen are so remarkable; and although he not unfrequently inculcates doctrines and opinions which we cannot approve, we can confidently recommend his book as possessing much truly valuable information.

A Treatise on the Materia Medica and Therapeutics. By JOHN EBERLE, M.D. Member of the American Philosophical Society, &c. &c., in two vols. 8vo. fourth edition much enlarged and corrected. Philadelphia, Grigg and Elliot, 1834.

THE high and extensive popularity this work has enjoyed for several years, renders a formal review or analysis of its contents unnecessary. It had been found, that owing to the rapid advances made in chemical and pharmaceutical science, it had become deficient in relation to many new and valuable remedial agents, which have been recently added to the materia medica. In preparing a new edition, Dr. Eberle has endeavored to supply this defect, and accordingly, while he has added to, and amended many of his previous observations, he has introduced other articles, which were not previously enumerated in his list. We have noticed several improvements, which will tend to enhance the value of the work. In relation, however, to the *polygonum hydropiperoides*, one of the Doctor's new articles; which he commends highly as an emenagogue, we fear much his favorable opinion will not be borne out by subseqent observation, at least when the remedy is administered in the small doses recommended by him. We have frequently, since 1819, when we were informed of its virtues by a quack, employed it as a diuretic in the treatment of dropsy, and have always found it necessary to give the decoction or infusion to the amount of a pint or a quart per diem, to produce any good effect. Dr. Eberle on the contrary, only prescribes a tea spoonful of the tincture, or two or three grains of the extract.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. *Case in which the kidney presented a double ureter.*—M. Lauth lately presented to the Academie Royale de Medécine, a memoir, containing the description of a kidney having a double ureter. The anomalous ureter, larger than the other, proceeded from the upper part of the kidney, and communicated with the urethra in front of the neck of the bladder.

Archives Generales de Med., August, 1834.

2. *Congenital fistulæ occupying the anterior part of the neck.*—Dr. Ascherson has collected eleven cases of congenital fistulæ occupying the anterior lateral part of the neck. In seven cases, these openings were situated in the angle formed by the inner attachment of sterno-cleido-mastoid muscle, and the clavicle and sternum: in three they were on the inner side of that muscle. In three cases there was a fistula on both sides of the neck, and that on the right was larger and situated higher up than that which occupied the left side. In all the cases, the orifice of the fistulæ was very small, and was generally surrounded by a red colored, fungous looking margin; in some, however, it was scarcely perceptible. Some of the fistulæ followed the course of the œsophagus; and could be traversed by a probe; in other cases they were tortuous. In one, fluid was injected through the fistula into the œsophagus; and in another case, an attempt to heal the opening was followed by great difficulty of deglutition. In nearly all the cases, the openings discharged a thick mucus; seldom a purulent fluid in any considerable quantity. Out of the eleven cases, three were in males, and eight in females; in all, the fistulæ were congenital.

These cases are, in some respects, analogous to several cases of congenital tracheal fistulæ described by Dzondi. In one of the latter, there was situated upon the anterior part of the neck, in the vicinity of the notch of the thyroid cartilage, a small fistulous opening of about a line in diameter, having a prominent raw border. It presented but little sensibility, and when pressed, poured out a few drops of a lympho-purulent looking fluid. When examined with a probe, this opening was found to communicate with a superficial cavity of two or three lines in diameter, but even a fine probe could not be made to traverse from the fistula into the trachea. Yet when the nose and mouth were closed, and a forcible expiration made, small bubbles of air were apparent in the fistula, shewing a direct communication between it and the trachea.

The principal difference between the cases reported by Dzondi, and those observed by Ascherson is, that in the former, the fistulæ occupied the median line of the neck, over the trachea or larynx, while in the latter, they were situated laterally. In both species of cases, however, the defect has its origin

in the same cause: an arrest of the development taking place in the part affected, at an early period of the evolution of the fœtal organization, thus perpetuating the type which the organ presented at the period at which its development experienced a check. It has been demonstrated by the laborious investigations of Rathke, that there is a period in the existence of the human embryo, at which it presents an arrangement precisely analagous to the gills of some of the inferior animals. Should, therefore, an arrest of evolution take place in the neck, while the embryo presents this type, these rudimentary gills will continue, and at birth will still be observed in the cervical region, in form of fistulous apertures of the kind described by Ascherson and Dzondi.

Such fistulæ secrete a mucous fluid in small quantity, and do not pour out purulent matter, except when they become the seat of a diseased process. Rudolphi has reported the case of a boy who, in consequence of the too sudden closure of the fistula, was affected with extinction of voice, epileptic convulsions, and other alarming symptoms, all of which were dissipated on restoring the opening. Dzondi also reports a case, where death followed the closure of the opening.—*Hecker's Wissenschaftlichen Annalen der Gesammten Heilkunde, Oct.*, 1833, *from Ferd. Maurit. Ascherson de fistulis colli congenitis adjecta fissurarum branchialium in mammalib. avibusque Hist. Berol.* 1832.

---

3. *Corrosive Sublimate in Ophthalmia.* By M. Fuzet Dupouget fils.—Influenced by the success obtained by the use of this article in ophthalmia, by M. Bally, M. Dupouget was induced to employ it in two cases of this disease. The first was that of a female affected with intense conjunctival inflammation of the left eye, which, according to her representation, had been contracted about six days previously, in consequence of a sudden change of temperature from heat to cold. The disease had continued to increase; the influence of light was painful, and she felt as though the organ was filled with sand. Four grains of corrosive sublimate were dissolved in four ounces of distilled water, with which she was directed to bathe the eye from twelve to thirty times in the course of the day. No antiphlogistic treatment was prescribed, and the individual was only directed to use a warm pediluvium night and morning. By the third day the inflammation had nearly disappeared, there being merely a little redness in the external angle of the eye; and the intolerance of light, and the feeling of sand in the eye were no longer experienced. On the sixth day, no vestige of the disease remained.

The second case was that of a man who had been affected with inflammation of both eyes for thirty-nine days. The disease was gradually developed after a night fishing party, in which a strong torch light was used. The patient had employed ineffectually repeated leeching to the temples, collyria, emollient applications and a blister to the back of the neck. Both eyes were inflamed, but upon the cornea of the right, there was a small opaque point, as large as a grain of millet. This eye was besides the more painful, and felt as though it contained sand. The lotion of corrosive sublimate was employed as in the above case, and the blister on the neck kept discharging. No very perceptible amendment was observed until the eighth day; but from that time forward the improvement was progressive, and by the thirteenth the inflammation had entirely disappeared, merely leaving the albugo. This latter was removed in a little more than a fortnight, by the use of the ointment of janin.—*Revue Medicale, Juin*, 1834.

4. *Cerebral œdema in the insane.*—M. Scipio Pinel recently addressed to the Academie des Sciences, some observations on this subject from which he draws the following conclusions:

1. In cerebral œdema there is manifest lesion of intelligence, as well as of both sensibility and mobility.

2. The accumulation of fluid upon the surface of the brain, or its infiltration in the substance of the organ, occasion an extinction of the intellect.

3. The most rational treatment consists in derivatives, diuretics, and laxatives.

4. Cerebral œdema is an accidental complication of cerebral irritation, taking place in individuals disposed to œdema.—*Annales de la Medécine Physiologique, Juin*, 1834.

---

5. *Preservation of leeches.*—M. de Cavaillon reports, that he has succeeded in preserving, for upwards of a year, a dozen leeches in the same water, (about three pints,) having about two or three ounces of animal charcoal mixed with it. These leeches were repeatedly employed, and after being disgorged each time, by putting them in a weak solution of common salt, they were replaced in the same water. He has succeeded by the same process, in preserving fish for a length of time, without changing the water.—*Ibid.*

---

6. *Cyanide of Gold in the treatment of Syphilis, Scrofula, &c.* By Dr. Porche. According to Dr. Porché, the cyanide of gold is much more efficacious, and less exciting in the treatment of syphilis and scrofula, than the chloride of gold and sodium. These two salts are employed in the same dose and under the same form; but the cyanide possesses this advantage, that it is not like the chloride decomposed, when added to an extract, and that it can consequently be administered in combination with mezerion without any diminution of their virtues being produced. M. O. Figuier has attempted to point out a sure and easy method of preparing this salt, which consists in precipitating the chloride of gold by the cyanide of potassium. To ensure the success of the operation, it is necessary that the solution of the chloride should be exactly neutral, to which condition it must be reduced by repeated solution and evaporation. It is also necessary that the cyanide of potassium should be perfectly pure. It is remarked by M. Figuier that this salt obtained in the dry state, by evaporating the crude cyanide in the open air, always contains formiate of potassa, formiate of ammonia, and carbonate of potassa, and is therefore unfit to be used in the preparation of the cyanide of gold. He proposes to prepare this salt by adding gradually to a solution of the chloride of gold, a solution of the cyanide of potassium obtained directly from the residue of the yellow prussiate as it remains after calcination. Taken in this state, the alkaline cyanide has not yet had time to undergo any change, and is capable of furnishing a cyanide of gold perfectly pure.

M. Figuier remarks, moreover, that the decomposition of the two salts should be effected, very cautiously adding the cyanide of potassium gradually, lest an excess should be thrown in, which would dissolve the cyanide of gold already formed. The cyanide thus obtained should be carefully washed and preserved excluded from the influence of light.

The following formulæ are proposed by Dr. Porché for the administration of the article:

℞ Cyanide of gold, gr. i.
Powd. Iris washed with alcohol. iij.

Mix and divide according to the prescription.

℞ Cyanide of gold, gr. i.
Extract. Mezerion, iij.
Powd. mallows q. s. to make pills of v. grains each.

℞ Cyanide of gold, gr. i.
Chocolate qs.—to make pastills of v. or vi. grs. each.

Under whatever form this medicine is administered, the dose at the commencement should not exceed one-fifteenth of a grain, to be gradually increased.—*Journal des Connaissances Medico-Chirurgicales, No.* 12, *Aout.* 1834.

---

7. *Alcoholic extract of Aconitum Napellus in the treatment of acute articular rheumatism.* By M. Lombard.—The extract employed by M. Lombard is prepared in the following manner: the expressed juice of the plant submitted to gentle ebullition to coagulate the vegetable albumen, is afterwards evaporated on a sand bath, re-dissolved in alcohol, and again evaporated by a gentle heat.

The following are the conclusions he has deduced from his experience with the remedy.

1. The alcoholic extract is endowed with specific powers against articular rheumatism.

2. It produces a prompt cessation of the pain and tumefaction, and dissipates the collection of synovial fluid.

3. It does not act as a derivative either upon the skin or the intestinal canal.

4. Administered in large doses, it produces active stimulation of the brain, and seems to modify its circulation.

5. The alcoholic extract contains the active principle of the aconite,—at least as regards its anti-rheumatic powers.

6. It may be administered in fractional doses, gradually augmented, from six grains up to a drachm and a half in the twenty-four hours.—*Ibid, and Gazette Medicale, June,* 1834.

---

8. In the treatment of *herpes preputialis,* M. Biett frequently employs the following ointment with success.

℞	Axong. Porci.	℥ i.
	Calomel.	3 ss.
	Camph.	gr. viij.

℞	Cerat. simp.	℥ i.
	Sub. carb. Potassa.	3 i. m.

In very obstinate cases he administers the solution of Pearson, at first in doses of a few drops in the course of the day, up to a drachm within the same period, according to the effect produced, and the idiosyncrasy of the patient.—*Ibid.*

9. *Common Soot as a substitute for Creosote.*—In the *Revue Medicale*, for June, M. Blaud has detailed eighteen cases of various affections, most of which were speedily relieved by the employment of lotions and ointments of common soot. The lotions consisted of a decoction of the article prepared as follows:

℞ Fulig. ligni. manip. ij
Aqua commun. ℔i.
Coque dimid. Hor. et colat———————
℞ Fulig. ligni. ʒi.
Axong. porci. ʒi. ft. unguent.

Where a soothing effect was desired on account of great irritability, 3 ij. Extract. Belladona were added to this ointment.

The following summary is added by M. Blaud:

The therapeutical facts contained in the memoir may be reduced to five orders.

The first order comprises various cutaneous affections:

1. Six cases of herpes (*dartre*) mostly chronic, and exceedingly obstinate and intense, all of which were promptly cured by the lotions and ointment of soot.

2. Two cases of *tinea favosa*, which were rapidly dissipated by the same means.

3. A case of psora, which had resisted an ointment composed of sulphur and subcarbonate of potassa, was promptly cured by the lotions of soot.

The second order comprehends various lesions of the skin extending to the subjacent structures; as for example, a cancerous ulcer which was cured in twenty-two days by the decoction and ointment; and an obstinate chronic venereal ulcer, which was cicatrized in nineteen days under the use of the same articles.

The third order of cases consists of chronic irritations and exudations of the lining membrane of the nose, mouth and genital organs, which also yielded to the remedy.

In the fourth order are included lesions of the mucous membranes extending to adjacent structures. The only case of this kind was one of cancer of the uterus, which, after the treatment had been continued four months, presented, as far as the parts were susceptible of being explored, a complete cicatrization.

Under the fifth head are placed those affections which were not benefitted by the use of the soot, and in which it was more injurious than useful. These were a cancer of the nose, a similar affection of the breast, and a chronic ulcer occupying the back of the hand.

Conclusions.—From these facts it is manifest that soot is a remedy of incontestible efficacy in the treatment of herpes, varus, pannus, tinea, psora, scabby exudations of the mucous membrane of the nose, diptherite of the mouth, cancerous ulcerations of the mammæ and uterus, chronic syphilitic ulcers, herpetic affections of the mucous membrane of the genital organs, pruritus of the vulva, &c. Hence it may be advantageously substituted for the creosote under all such circumstances, and should even be preferred, because on account of its abundance, and the facility of its preparation, it is always at hand, and because in its operation it does not excite pain like creosote.

It is also probable that it will be found useful in chronic leucorrhœa, especially that form of it which affects the vagina, where it can be applied with facility;—in ancient fistulæ, in indolent ulcers,—in short in all cases in which creosote has been found beneficial.

The facts detailed shew nevertheless that it will not prove effectual in all cases of cancerous ulceration, and besides, that there are certain chronic ulcers, especially those attended with a copious discharge of a sero-purulent fluid, as in the *herpes squamosus madidans*, which it would be improper to treat with the article, without proper precaution, on account of its active powers of promoting dessication and cicatrization.

The lotions were employed frequently in the course of the day, and in the intervals the part was covered with the ointment.

---

10. *Case of octan intermittent.* By Dr. Schmidt.—As Lusitanus, Werlhoff, Tissot, Etmuller, Paulini, Hagedorn, Schultze, and some others, have reported cases of octan intermittent fever, it may be worth while to add one other to the list, since examples of this form of disease are rare.

A female, aged fifty-three, of choleric temperament, and who had been for several years affected with disease of the liver, was attacked, in the months of January and March, with jaundice, which on the second occasion, after continuing ten days, terminated in a tertian intermittent fever. By means of evacuating remedies, the jaundice was subdued, and the affection of the liver mitigated, and after the seventh paroxysm, the fever was arrested by the use of the bark. At the expiration of fifteen days, she was attacked with violent rigors followed by a hot fever, and on the fifth and sixth days after this, a second and a third paroxysm ensued. By means of evacuants the disease was again arrested. Fourteen days after the last paroxysm, on Tuesday, the 22d of May, the patient was attacked with severe rigors, which continued until one o'clock in the day. It was attended with incessant yawning, acute pain of the knees, feet, and back, unquenchable thirst, and a distressing sense of oppression about the chest. On this occasion, however, she did not suffer from the heat of the skin and pain of the head, but in the course of the night, such a profuse acid perspiration came on, that she was obliged to change her linen four times. Next morning, after a refreshing sleep, she felt herself very well, had a good appetite, a clean tongue, experienced no pain of the head, or uneasiness, no aching in the limbs, and was able to resume her ordinary avocations. Eight days after this period, on the night of the 28—29th of May, the patient was attacked, about three o'clock at night, with severe rigors, which lasted longer than on the previous occasion, and were accompanied with the same symptoms. On the preceding evening she had experienced some aching of the limbs, and could not eat with an appetite. After a feverish heat and slight pain of the head, which continued about half an hour, the same kind of profuse perspiration came on as in the former attack, and continued until the next evening at nine o'clock. The comfortable feelings of the patient on the following days, and her prejudice against the employment of medicine, founded upon the belief, that it would be improper to do any thing to arrest its progress, until the disease had passed through their paroxysms, prevented the use of any remedies calculated to check its further progress.

On the sixth of June, therefore, one day later than usual, she was attacked

early in the morning with another paroxysm. This time the chill was slighter, but the pain of the knees, back, &c., the yawning and oppression were more distressing. The heat of the skin and pain of the head, which were slight, were followed by a profuse acid perspiration, which continued until the morning of the next day. On questioning her on the seventh of June, she complained of oppression about the stomach, difficulty of breathing, pain in the epigastric and umbilical regions, loss of appetite, thirst, and pain of the head and loins. Her pulse was feverish, and her tongue thick and heavily coated. She was ordered an emetic, and the following aperient: ℞ Tart. potassæ. Extract. Graminis. Tinct. rhei aquosa in aqua foenicula. The operation of these remedies afforded immediate relief from the gastric distress, but at ten o'clock on the 12th of June, she experienced another attack of fever, which on this occasion, returned after the same intervals as the first paroxysms. In this attack the chill and aching of the extremities were considerable, and continued several hours. A hot fever succeeded, which, at the expiration of four hours, terminated in a free perspiration. After relieving the gastric symptoms by aperients, she was put upon the cinchona, until the 19th of June, the period of the next attack. By this means the paroxysm was prevented, and by the use of bitters and stomachics, she was finally restored to health.—*Hufeland's Journal für Praktischen Heilkunde, Marz,* 1833.

---

11. Doctor Eisenmann, of Wurtzburg, represents that he has obtained very useful effects from tepid lotions of water impregnated with chlorine, in the treatment of variola, scarlatina, erysipelas, typhus exanthematicus, malignant pustule, &c.—*Revue Medicale, Juin,* 1834.

---

12. *Aneurism of the Hepatic Artery with consequent Obstruction and Distention of the Biliary Ducts.—Jaundice.—Death by Rupture into the Peritoneal Cavity.* By Dr. Stokes.—Samuel Meares, ætat. 35, a man of regular habits, but who had formerly suffered from apoplexy, was admitted into my wards on the 7th of August, 1832, in a state of complete jaundice. Nine weeks ago, while in the enjoyment of good health, he was attacked with copious hæmatamesis, which subsided under treatment in about five days, leaving him, however, with impaired appetite and constipated bowels. For these complaints he attended at a dispensary. On the 29th of July, he first observed the legs and arms slightly yellow. The only other remarkable symptom was drowsiness. Next day the nausea increased, he had some pain in the epigastrium, the jaundice was universal, and he had yellow vision.

On admission he had thirst, nausea, and some epigastric pain, increased by pressure; but of this he did not complain much. Fæces and urine affected as in jaundice. Pulse 112, tremulous.

The abdomen appeared generally tumid, but particularly so in the epigastric region, where the left lobe of the liver could be felt as if much enlarged, and stretching towards the left hypochondrium. The right lobe seemed also enlarged, its lower margin extending to the umbilicus. About two inches to the right of this situation I detected a soft pyriform and fluctuating tumor, which I concluded was the gall bladder in a state of distention. The liver felt unequal and was tender to pressure.

In this state he continued for nine days, without any change of importance,

in the local signs or symptoms. He became covered by a miliary and afterwards a petechial eruption. The pain and tenderness in the tumor were variable, the jaundice persistent. In none of our examinations did we detect any remarkable pulsation of the tumor, nor did the patient complain of pain until he was questioned, or a manual examination made. On the seventh day, though if possible more deeply jaundiced, he declared that he saw all objects of their proper hue. He had thirst, anorexia, and for some time a morbidly clean and livid tongue.

On the morning of the 17th of August, he sat up in bed for some purpose, grew faintish, leant back, and speedily expired without a struggle and seemingly without pain.

Dissection.—The body presented the usual appearances of jaundice. On opening the abdomen, the whole of the intestinal convolutions were concealed from view by a layer of soft and recently coagulated blood, which was moulded into the different folds. This was removed and found to fill a quart vessel.

The liver, contrary to expectation, was found rather small, but very prominent, and beneath its thin edge were seen two projecting tumors; one, the gall bladder, enormously distended with bile, and remarkably stretched; the other occurred to the right of the former, and occupied the notch in the anterior edge of the liver. It was of the size of a large orange, roughly coated with cellular membrane; generally adherent, and without fluctuation. It now appeared that the apparent enlargement of the liver was caused by its displacement, its being pushed from behind by these tumors. The second tumor was strongly bound down to the spine, with the pancreas encircling its lower half. I now made a careful examination of the aorta, which was every where healthy, and had no communication with the tumor. Under these circumstances I proceeded to a careful examination of the tumor and liver, in which I was assisted by my colleagues, Messrs. Porter and Collis, and also by Dr. Houston, curator of the Museum of the Royal College of Surgeons. The tumor proved to be an aneurism of the hepatic artery, covered by the capsule of Glisson, and some cellular membrane, and so situated as to press directly on the bile duct. Its interior was flocculent and contained some coagula. The opening in the vessel was well defined, forming an oval slit, and seemed the result of perfectly circumscribed disease.

The portal veins were seen ramifying and dilated on the inner and inferior face of the tumor, which had ruptured by a rent on its antero-inferior surface.

The state of the biliary ducts throughout the liver was most singular. They were enormously dilated up to their termination. The larger ducts could admit a man's thumb, the dilatation continued to the peritoneal surface of the liver, where numerous projections, varying from the size of a walnut to that of a pin's head, were formed apparently by the distention of their ultimate ramifications; these contained bile, and when opened, that fluid was ejected with considerable force; their color was of a dark green. The substance of the liver was friable and soft, and seemed engorged with bile; no disease could be detected in any part of the gastro-intestinal surface.—*Dublin Journal, July*, 1834.

---

13. *Iodine in Leucorrhœa.* By John Eberle, M.D.—Iodine has been strongly recommended as a remedy for this obstinate affection. Dr. H. A. Goeden states that he has cured two cases of it, of six years duration; and Dr.

Bell, of Philadelphia declares, that he has used this remedy in several cases of this complaint, "with speedy and permanently beneficial effects." M. Ginelle of Paris also, obtained the most satisfactory results from the employment of iodine in leucorrhœa. Within the last six months, I have prescribed iodine in four cases of this malady. All of them were cases of long standing. The iodine was employed internally, in the form of tincture. Ten drops of the officinal tincture were taken three times daily; a mild and digestible diet was enjoined, and a laxative pill, composed of five grains of blue mass, one grain of aloes and one-tenth grain tart. antim. was directed to be taken every third evening. After these remedies had been used about two weeks, a manifest abatement, as well as improvement in the character of the leucorrhœal discharge, was noticed in two of the cases. The dose of the iodine was now increased to twelve drops, and in a week afterwards to fourteen drops. Two of these cases gradually yielded to the influence of this remedy, and in about two months after the commencement of this treatment, all the symptoms of the disease were subdued. I saw one of these patients a few days ago, and she assured me she was entirely free from the disease. In the two other cases the result of this treatment was not so favorable. Both these patients, however, were considerably relieved; the discharge lost its purulent and acrid character, and the pains in the loins and hips, as well as the sympathetic affections of the stomach, and general nervous system were decidedly mitigated. Iodine generally manifests more decided remedial powers in cases of an aggravated form, attended with an acrid purulent discharge, than in mild and recent cases of the disease.—*Western Medical Gazette, for October.*

---

14. *Sulphate of Copper in Chronic Diarrhœa.*—Dr. Elliotson speaks very favorably of the effects of sulphate of copper in chronic diarrhœa from ulceration of the mucous membrane of the colon. I have used it with unequivocal advantage in at least four cases of this kind. A case for which I prescribed about six months ago, afforded me very satisfactory evidence of the usefulness of this remedy in this form of intestinal disease. The patient, when I first saw him, had been affected with diarrhœa for seven or eight months; and the character of the discharges as well as some other symptoms, indicated, most clearly the existence of ulceration of the mucous membrane of the bowels. He labored also under symptoms of confirmed phthisis pulmonalis. I prescribed the sulphate of copper in conjunction with sulphate of morphiæ, commencing with a quarter of a grain of the former, and the sixth of a grain of the latter, three times daily. The dose of the copper was in the course of the treatment gradually increased until it amounted to one grain and a half. Under the use of this remedy, the diarrhœa gradually disappeared, the appetite and alvine discharges became regular, and his feelings, in general, much improved. At the same time, however, that the intestinal affection was progressively improving, the disease of the lungs was manifestly increasing, and he finally sunk under the ravages of this disease. On post-mortem examination, the mucous membrane of the lower portion of the colon exhibited several irregularly defined *cicatrices*—one of them nearly an inch in length, and about half an inch wide. The surface of these cicatrized ulcers was smooth, perfectly sound, and somewhat lower than the surrounding healthy mucous membrane. The right lung was completely disorganized. Broussais, in the

first edition of his work on "chronic phlegmasiæ," asserts, that chronic diarrhœa, from ulceration of the mucous membrane of the colon, always terminates fatally. This, however, has since been satisfactorily contradicated. There can exist but little doubt, that, in the present case, the intestinal disease was cured, and that the result would have been favorable, had it not been for the pulmonary affection.—*Ibid.*

---

15. *Loss of the Sense of Smelling.* By Dr. Graves.—I had lately an opportunity of observing a very singular case of the total loss of the sense of smelling, occasioned by exposure to the effects of a very strong and disagreeable odor. Mr. ——, formerly a captain in a yeomanry corps, was attended by Mr. Barker of Britain street and myself. He was affected with ascites, and in the course of conversation one day, mentioned that in the Irish rebellion of 1798, information was received by the magistrates, that five hundred pikes were concealed in one of the markets of this city, buried at the bottom of a large cesspool, which was filled with the offscourings of the market and all manner of filth. He proceeded to the place, and superintended emptying out the cesspool, at the bottom of which the concealed arms were found as specified. During this operation he was exposed to most abominable effluvia, and suffered greatly at the time from the stench. Next day he found that he had become entirely insensible to odors, and since that, now a period of thirty-six years, he has remained completely deprived of the sense of smelling. From this it appears, that as exposure to very intense light may produce amaurosis, so exposure to intense odors may produce a corresponding affection of the olfactory nerve.—*Dublin Journal, September,* 1834.

---

16. *Case of Puberty and Pregnancy in a Girl of ten years of age.* By Dr. D. Rowlett.—Sally Deweese, daughter of John Deweese, was born in Butler county, Kentucky, on the 7th of April, 1824. She was of the ordinary size, but her hips and breasts began to grow rapidly in a few weeks after she was born, and at twelve months of age she began to menstruate, and her hips and breasts had become so large as to be the objects of common remark; and as she took no pains to conceal her condition, her menstruating so young became a fact of public notoriety, which continued regular until sometime in the year 1833, when she became pregnant, and on the 20th day of April, 1834, she was delivered of a healthy female child, weighing seven and three-fourths pounds. Thus at the age of ten years and thirteen days, she became the mother of a child of ordinary size; which, however, refused to suck her, and has been so far raised by the bottle. It is as healthy as is usual for children to be when raised by the bottle, and at the time of taking these notes, it weighed eight and three fourth pounds, and its mother weighed one hundred pounds. She was four feet seven inches high, and had the countenance of a girl not exceeding her in years, but is as intelligent as girls generally are at her age.

She was the fifteenth child her mother had given birth to, and was born when her mother was forty-five years of age. There had been no other case of early puberty, or premature old age in either the family of the father or mother.

Her father lived in Butler county until she was two years old, and then removed to the place on which he now lives, in Hickman county, one mile south

of Mayfield's creek, and ten miles east of the Mississippi river, in latitude 36°59 N.; but I presume that latitude nor atmosphere has had any influence in this truly (to me) astonishing case. I think it is an over-match for the case of the Swiss girl spoken of by Haller.—*Transylvania Journal of Medicine, for July, August and September*, 1834.

---

17. *Polyganum Hydropiperoides.*—One of our graduates, (Mr. Eastman,) in his inaugural dissertation, gave an account of his experience with what he called *hidropiper*, as an emenagogue. He declared that, in a great many instances of amenorrhœa, he had known it to excite the menstrual secretion. From a specimen of the plant which he shewed me, I perceived that it was the *polygonum hydropiperoides*, one of our most common weeds. About eight months ago, I had a saturated tincture prepared of the dried leaves of this plant, and requested Dr. Strader of the Commercial Hospital of this place, to give it a trial. In the course of about six weeks he administered the tincture to five patients. Three of these were promptly relieved. One of these patients had never menstruated, though above twenty years of age. After she had used the medicine four or five days, the menstrual discharge came on very freely. I have myself used it in three cases. In two of these, it brought on the menstrual secretion in about four days. Two other practitioners of this city have also used it at my request; and one of them informed me, that it has proved efficacious in one out of two cases in which he prescribed it. A tea spoonful of the saturated tincture should be given three or four times daily.

[*Western Medical Gazette, for March*, 1834. J. Eberle, M.D.

---

18. *Case of Imperforate Vagina.* By A. B. Shipman, M.D.—Miss ——, ætat 15, of a good constitution and plethoric habit, was taken on the 14th of May last, with a total retention of urine—she did not inform any one of her condition until the evening of the 15th, when the pain and distention were such as to compel her to disclose her case to her mother—several domestic remedies were made use of but to no purpose, when I was sent for, at 11 o'clock in the evening. On arriving at the house, I found her suffering great pain, and perspiring profusely; there was but little fever, tongue clean; bowels regular.

She was of good size, of a healthy robust aspect, and every appearance indicated that she had arrived at the period of puberty, although I was assured that she had never menstruated—I found the abdomen greatly distended and proposed using the catheter; this, after some reluctance, was at length consented to, and I drew off six pints of urine with complete relief—on visiting her next day I found she had made no water since I left, and I used it again, and drew off three pints more, bled her to 16 ounces, gave a cathartic of sup. tart. potass. and jalap with mucilages—after this she passed water freely and was otherwise as well as formerly. On the 19th of June, I was sent for again, she had remained perfectly healthy since the last attack in May, just one month. About three days previous to my visit the last time, she was taken with pain in the hypogastric region, which increased to such a degree as to deprive her of sleep for the last two nights—she had made water freely, and when I arrived a cathartic of ol. ricini, which they had given her, had operated freely; this, together with fear, kept her quiet while I remained. There was

no febrile action, tongue clean, skin warm and moist; a slight examination of the abdomen discovered considerable fulness there; but I did not examine her critically, as the patient was very timid. I gave her an anodyne of morphine, and left with directions to repeat it if necessary. On the 21st I was again sent for and was informed that she began to complain immediately after I left, the anodyne gave no relief, that she had now pain in the back and hips, extending down the thighs, with alternate intervals of ease, but of short duration—she had not slept since the 17th, and looked exhausted, like one worn down by long and severe suffering—she was covered with a profuse cold perspiration, and the remedies which had been used, such as the steam of hot herbs and stimulating drinks, had all served to aggravate her sufferings.

The pulse was now frequent but soft, the tongue moist but coated; she passed water frequently, but in small quantities at a time; the abdomen was much distended, and tender upon pressure. I was led from this assemblage of symptoms to suspect retained menses, and communicated my views to the mother, when I made an examination and found as I expected the vagina closed by a firm but elastic membrane, and by pressing it upwards with the finger, could distinctly perceive fluctuation.

I proposed, as the only remedy, that the membrane should be laid open; this was readily assented to, and with a scalpel I carefully made an incision in the most prominent portion of the membrane which was about on a level with the nymphæ. As soon as the membrane was divided, which was nearly half an inch in thickness, dark fluid blood about the consistence and color of molasses, to the amount of three pints, escaped. I enlarged the opening sufficient to admit the fore finger, and found the vagina dilated into a large smooth cavity. The base of this membrane was situated about half an inch beyond the nymphæ, and the edges of it, after the opening was made, felt like a firm ring surrounding the vagina. As the menstrual fluid continued to flow, I did not then introduce a tent, but the next day I employed one of as large a size as could be passed, which was retained by the T bandage. The patient experienced immediate relief after the operation, and fell into a sound sleep, which continued for several hours;—the menstrual fluid continued to flow for three or four days, when a discharge resembling the lochia took place. This lasted several days, when the patient regained her usual health and strength; and on the 16th of July the menses again made their appearance and continued eight days without pain or inconvenience.—*U. S. Med. and Surg. Jour. Sept.* 1833.

.19 *Poisoning with Salmon.*—Two persons, a man and a woman, at Maidstone, in Kent, have lost their lives by eating putrid pickled salmon. On examining their bodies professionally, the morbid appearances produced by an animal poison were clearly detected in the stomach and intestines. A coroner's inquest has been held in the case, and a verdict of *Manslaughter* returned. The vender of the deleterious article has accordingly been committed to jail on the coroner's warrant.—*London Medical Gazette, Sept.* 1834.

VARIETIES.

M. PURGON.—Avant qu'il soit quatre jours vous deveniez dans un état incurable:—
Que vous tombiez dans la bradypepsie,—
De la bradypepsie dans la dyspepsie;
De la dyspepsie dan l'apepsie;
De l'apepsie dans la dyssenterie;
De la dyssenterie dans l'hydropsie;
De l'hydropsie dans la privation de la vie, où
Vous aura conduit votre folie.

"UNIVERSAL MEDICINES."

In a late number of the London Lancet, (July 26, 1834,) the reports of two trials are contained, in which neither the "*universal medicines*"—called *universal*, Mr. Sergeant Wilde suggests, "because just as good for one thing as another"—nor the "British College of Health," whence they emanate—appear to much advantage.

The first of the trials is for a libel as flagitious and unjustifiable as any to be met with in the records of justice. It will be best understood by the opening of the plaintiff's counsel—Mr. Sergeant Wilde; and the charge of Lord Chief Justice Tindal to the jury.

'Mr. Sergeant Wilde opened the pleadings. The action was brought against John Stephens and Thomas Moat, the former being the printer and publisher, the latter the proprietor, of a paper called 'The Christian Advocate.' Mr. Moat is also a partner with a person named Morison, who had been much before the public lately, advertising a quack medicine called "universal medicine." The action was brought for a libel, published against Mr. Pursell, in an advertisement of Messrs. Morison and Moat, in the newspaper in question. The plaintiff, Mr. Pursell, a surgeon and apothecary of great respectability at Stockbridge, was called upon in the course of his profession to attend a little boy who had become very ill in consequence of having been held over some offensive matter, either in sport or mischief. The father of the child applied to Mr. Pursell, saying that the child was "sick at the stomach," and requested some medicine, which was accordingly forwarded. A few days afterwards Mr. Pursell was requested to see the child, whom he found much disordered from the nature of the offensive matter over which he had been held suspended with his head downwards, and which had caused a determination of blood to his head. After the child had been ill for some time, he began to mend, and ultimately recovered. The parents of the child, who manifested all the feelings which would belong to such relationship, had been perfectly satisfied with the skill and kindness of Mr. Pursell. Mr. Pursell was, however, surprised to find himself attacked in the before-mentioned newspaper, wherein he was referred to by his initial letter as "Mr. P." and an account was given of his attendance on the child, and his mode of treatment. It appeared that Mr. Morison, the partner of Mr. Moat, and one of the persons engaged in vending these medicines, sold them at a place in the New Road called the "British College of Health," Mr. Morison being styled the "president," and Mr. Moat

the "vice-president." There are always found persons weak enough to be charmed with something that is new and extraordinary. It appeared that Mr. Morison being in the habit of having a very splendid equipage down in Hampshire, a lady there, a Miss Tomkins of Broughton, was very active in recommending the medicine of Mr. Morison, and had taken a very decided aversion to the medical men practising in those parts, Mr. Pursell among the rest. This lady, during a part of Mr. Pursell's attendance on the boy, occasionally visited him, and, as it was stated, when the child was getting better, administered some of those "universal pills," called "*universal*," he supposed, because just as good for one thing as another! In consequence of this, an account was sent to the newspaper, and it was supposed the account had come from this lady. Application was made for information, and the following letter was received, by which it would appear that the attention of the defendant Moat particularly was called to the libel—the injurious nature of which could not be doubted. The defendants, however, instead of doing justice to Mr. Pursell, dared him to proceedings, and continued to publish the libel, notwithstanding they knew that Mr. Pursell had complained of it, and was determined to vindicate his character. The letter was dated from "Hamilton Place, New Road, London, 26th of November, 1833:"—"Mr. Pursell,—Sir, We are surprised to find that you threaten to prosecute Miss Tomkins, of Broughton, for an alleged libel on your character in the case of Ray's boy, charging her with the crime of furnishing us with the means of that publication"—[Mr. Pursell's object being the vindication of his character, he had applied to the individual whom he supposed to be the writer of the article which furnished the materials of the libel],—"charging her with the crime of furnishing us with the means of that publication. Whether your gallantry as a gentleman will be elicited by your threats upon a young lady, who, were she proved to be the directress on pure principles of philanthropy, could not add much to your triumph, is for you, Sir, to determine; but we, as men, would rather meet you face to face, than be obliged to cut behind the scenes." [By which they meant, rather than bring your action against Miss Tomkins, and force us to defend her, bring your action against us.] "If your cause is good, you need not fear broad daylight. Who is Mr. P.?" [The libel spoke of the attendance on a boy named Ray, and gave a description of the medical person "Mr. P." Mr. Pursell was a gentleman well known.] "Who is Mr. P.? You have no right to assume that you, Mr. Pursell, are the person meant; if you were afraid you should not be known as the same, you do right to exhibit as a prosecutor, and we shall be obliged by your indulging us with the promised intended notoriety. We are, Sirs, yours, &c. Morison and Moat." That was the answer to the complaint. Further application was made, which was answered in the same way. The learned counsel here called attention to the nature of the libel. It imputed to a medical man every thing which can injure him,—great ignorance, great want of attention, and great want of humanity, and described him to have conducted himself in such a manner as to render himself unworthy the confidence of any respectable individual. It was entitled "British College of Health, New Road, King's Cross, London. From a correspondent in Hampshire. A dreadful instance of cruelty and maltreatment, practised on a poor child, by one of the faculty." That was the general description of Mr. Pursell's treatment of the boy. "G. Ray, a child about thirteen years of age, was

on Saturday, July 6th, 1833, cruelly exposed to the influence of malaria, which produced much giddiness of the head, accompanied by sickness, which prevented his keeping food on his stomach. His mother, imagining that he was going to have the small pox, did not attend to what he said was the cause of it; and indeed, at first, she thought he might have been drinking too much beer." Then it said, this went on till "Friday, when Mr. P. was sent for. He did not come, and was sent for again, but instead of coming, he sent six leeches to be applied to the temples, lotion to keep the head wet, with four powders to be taken three times a day, and mixture twice a day. Every thing was done as directed, but Mr. P. did not see the child till Tuesday the 16th; he then came and brought twenty leeches and twelve more powders. Since Mr. P's orders had been attended to, the poor child gradually became worse, he was unable to rise from his bed, was very feverish, and at times delirious; the vomiting ceased, but a complete loathing of food succeeded. When moved, his head was in a state of extreme agitation, a constant thirst came on; skin very dry; no urine was passed hardly; breath short, with frequent cough and wheezing on chest; violent purging day and night. Notwithstanding all this, Mr. P. put on thirteen more leeches on one side of the head, and six or seven on the other. The powders and lotion were to be continued, but not the mixture; a very large blister had been applied to the back. No food of any kind was to be given for a week, not even a spoonful of milk in his tea, no toast and water, nor any fruit. "On Wednesday the 17th," the writer said, "I saw him; Mr. P. had again put on ten more leeches, applied mustard plasters to the feet, head was to be shaved, and ten leeches to be applied on any part of the head; daily powders and lotion to be continued." The writer then went on,—"On Monday the 22nd, I saw him in the evening after his mother had applied the leeches as usual, but the child was so dreadfully exhausted, she could not make up her mind to put on more than seven. By night the child was in such a sinking state that it did not seem possible he could live till morning, which made the mother form a strong resolution not to give the third powder that night, and if the child lived never to give him any more of Mr. P's medicine nor follow his directions in any way again."

'Thus the object of the plaintiff's visits having been answered in the restoration of the child, the fact of the mother sending to him to say, he need not trouble himself again, was stated as a ground of dissatisfaction on the part of the mother. The letter went on to state,—"Being satisfied that nature was doing her part to restore the vital powers, I offered to assist in administering a little of the "Universals," or rather to direct what dose should be given, and what other means should be used to restore strength, which offer was thankfully accepted by the poor mother, and I ordered that he should take one mild pill, have his head, hands, feet, &c. washed well with warm water, and the blister which was very bad, washed and dressed with the "Universal Ointment." Here came a detailed account of the treatment of the child. It then said, "On Tuesday afternoon Mr. Pursell had been, and pronounced the child worse, and in more danger than when he saw him last, squeezed his back where the blister had been, made the child cry, and then said, "there is something wrong there, he must have another blister on the same part, and ointment to keep it open; leeches, powders, and lotion, the same as before."

'It then stated the mother to have declined pursuing Mr. Pursell's remedies,

and to have told Mr. Pursell she should not "attend to his orders any more, for she did not believe he had tried to cure her child." At last it described the plaintiff as leaving in anger, because the child was getting better; and, further, what if it had been true would have reflected the deepest disgrace on the plaintiff, it was said he afterwards told a person of the name of Judd, the master of the boy, that "he could have cured the child long before if he had been sure he should have been paid for it." Then followed the further progress of this till the child's perfect cure under their "Universal Medicines." The same spirit which led to the publication of this libel, led to its active circulation. The lady's attention was challenged to this article. She applied to Messrs. Morison and Moat, who wrote the insolent letter referred to; an action was brought, and undoubtedly to the plaintiff's surprise, he found that every word of the libel was justified. They continued to impute, and professed themselves able to prove, every tittle of the libel. The cause was coming on for trial with no slight portion of anxiety on the part of Mr. Pursell, for whatever Messrs. Morison and Moat should think of "a love of notoriety," the jury would feel that when a medical man is charged with want of attention and humanity towards patients under his care, that such a case calls for public vindication of his character. If the poor could not rely upon the character of medical gentlemen, sad indeed would be their condition. Nothing would tend so much to create disgust towards a medical man, as the conduct imputed to Mr. Pursell. The plaintiff, therefore, sought for an explanation, in order to restore himself to the good opinion of those in whose judgment he might have suffered, and found himself called upon, more particularly considering the temper and manner in which he was attacked, to bring the present action. As the day of trial approached, having had the benefit of holding out that they had justified (after the state of anxiety in which such justification might put a respectable individual), the 3rd or 4th of July (last Friday) the summons was taken out, in order to withdraw all these justifications, and now they were in court to assess the damages which the plaintiff ought to receive for the publication of such a libel. Ever since the action they had gone on publishing the libel, for such medicines could only find a sale by the old trick of publishing the vast number of cures they have effected. It was sold as late as the 18th of June, and headed "British College of Health, New Road, King's Cross, London;" then came "From a Correspondent in Hampshire:—A dreadful instance of cruelty and maltreatment practiced on a poor child by one of the faculty." Messrs. Stephens and Moat, the proprietors of the *Christian Advocate*, were the nominal defendants, the real defendant being Mr. Morison, who pretended to be able to justify. In a case of this sort, brought by an individual, slandered as the plaintiff has been, it was no easy matter to know how to conduct the case on the part of the plaintiff. The publication is admitted. The defendant was still unsatisfied, and wished it to be pleaded there was some foundation. Mr. Pursell felt that he ought no longer to sit quietly down with such an imputation. The defendant's disposition to injure the plaintiff was clear enough. He (Sergeant Wilde) understood the lady was in attendance also; what use was to be made of her attendance he did not know. He could hardly comprehend what course the defendants mean to take after having taken the line of proceeding to which he had referred. He would now place witnesses in the box, and hoped that ample justice would be done, and

that the jury would not let the plaintiff fall a sacrifice to this wanton and malicious attack.'

From the evidence adduced by Mr. Sergeant Wilde, it appeared that the boy had never taken any of Morison's pills during his illness,—and that "Miss Tompkins" had endeavored to induce the mother to swear to whatever was contained in the pamphlet comprising the "eighty-fifth series of cases of cure by Morison's pills."

The Lord Chief Justice in summing up, said,

'This was an action which was brought by the plaintiff for a libel, imputing to the plantiff ill treatment of a patient under his care, accompanied with cruelty. The action was brought to recover a compensation in damages for the injury which this publication is in its nature calculated to inflict on the plaintiff, and also some remuneration for the distress of mind which he felt, when he was so held up to public indignation and scorn for the alleged ill treatment of a poor child. It would be for the jury to say, what was the fair and reasonable compensation he ought to receive. It was quite clear that the ground which had been urged as a defence had altogether failed. It was no answer at all that a lady in the country, of an enthusiastic character, submits to the defendant a statement which turns out to be fabricated, or at least very much exaggerated, in its particulars; but, however, the jury had merely to assess the damages which the plaintiff had sustained. It appeared to him (the learned judge), from some parts of the libel which professes to give an accurate account of the course of treatment and cure, that it seems only to have been put in for the purpose of inflicting a wound on the feelings of the plaintiff. They called it "from a correspondent in Hampshire, a dreadful instance of cruelty and maltreatment practised on a poor child by one of the faculty." One could hardly see that men, who produce a publication with such enthusiasm as that, can have intended otherwise than to attack a man who was regularly initiated in the profession, on purpose to make way for their own remedies, which they conceive to be useful at all events, for the purpose of serving themselves in a pecuniary point of view. As to the words with which they begin the statement, they were words evidently put into the publication after the letter had been written, and, no doubt, after it had been received. In the course of her letter, she stated in one place that "Mr. Pursell had been, and pronounced the child worse, and in more danger than when he saw him last; squeezed his back where the blister had been; made the child cry, and then said, 'There is something wrong there, he must have another blister on the same part, and ointment to keep it open, leeches, powders, and lotion, the same as before.'" Then she said, "the mother told him she was quite sure the child was better, and that she should not attend to his orders any more, for she did not believe he tried to cure her child." That was stepping out of the way in detailing the treatment of a medical man; even if she had stated so, it would not have justified this attack; and in drawing a conclusion from the facts, it might be useful to look at the difference between the practice of the regularly educated medical man, and the effect of this newly-discovered remedy. A person stepped out of the course, and gave an account of what the mother said—that she did not believe this person, who claims under the record, ever attempted to cure her child. The writer made Mr. Pursell to call again upon the 25th, and when asked what he thought of the child, to

have said, "Oh, he is quite an altered person." Mr. P. had "previously seen some person, to whom he said he could have cured the child long before, if he had been sure he should have been paid for it"—a great calumny in point of fact; for it was not justified, nor was it stated where the party is to be found, in order to have an opportunity of proving it, if it were true. It was a great calumny, when a man had been attending a family in humble station, to charge him with leaving off that attention, and being guilty of such baseness upon a purely selfish feeling, and not exerting the facultics he possesses—asserting, without reference either to the mode of treatment, or to the virtue of the newly-discovered remedy, a falsehood which imputed to him great baseness of mind. It appeared there had been a republication of the libel in another shape. He should not advise the making of that a ground for the increase of damages, but it was a question for the jury. It was evidence to show that Mr. Moat had not done the thing privately or unadvisedly. The defendants both insisted upon it that all they had asserted was true, and they had allowed it to remain on the record until Friday the 4th of July. It was asserted, upon the part of the learned counsel for the defendants, that this was no aggravation of the offence at all, for it showed that before the investigation they thought it was true, but afterwards found it was false. It was this assertion which has kept the mind of the plaintiff in a considerable degree of anxiety, and the jury would say whether they thought that showed any dignity of mind on the part of the defendants. If it was meant to deter the plaintiff from proceeding further, by the fear which it might provoke in a susceptible mind, then it bore a still worse aspect and conclusion.

'The question of damages, which is all you have to determine, is one that belongs to yourselves; you will say, under all the circumstances, what is a fair and temperate remuneration, what damages the plaintiff ought to receive, for the injury he has sustained.

'The jury retired for a few minutes, when they returned a *verdict for the plaintiff, damages* FIVE HUNDRED POUNDS.'

The second case is that of the King *v.* Webb, which was tried in the city of York before Lord Chief Baron Lyndhurst. The charge was, that the prisoner having, with want of caution, administered a powerful medicine, he being ignorant of the nature of that medicine, and of the disease for which it was administered, had caused or accelerated the death of Richard Richardson. It appears that Richardson was laboring under small pox, and that Webb, in the opinion of the medical witnesses, had given the "*universal*" somewhat too freely. The following is their testimony, as well as that of the chemist, to whom the pills were submitted for analysis, and who seems to have executed his duty with a minuteness sufficient to excite suspicion of its accuracy. The analysis of organic compounds is extremely difficult, as is admitted by every analytical chemist. We are sorry, that the "very long and minute detail of the several tests to which Mr. West had subjected the pills," is not published. Without it we must still remain in doubt, notwithstanding his confident summary of the results.

"*Mr. Wm. West.* I am a chemist and druggist at Leeds, and received two boxes of pills from Mr. Singleton, on Saturday the 5th of this month. I analyzed part of the contents of each box, and found the presence of aloes, gam*boge,* colocynth, a little cream of tartar, and a small quantity of ginger. In

No. 1, gamboge half a grain, aloes three-quarters of a grain, and three-quarters of a grain of cream of tartar. In No. 2, three grains of aloes, colocynth one grain, gamboge one and a half grain, cream of tartar half a grain, and ginger too small a quantity to be denoted.

Mr. West, by Mr. POLLOCK. I received about fifteen pills from Mr. Singleton. This witness went into a very long and minute detail of the several tests to which he had subjected the pills, to arrive at the conclusions he gave in evidence.

Mr. James Allen. Am a surgeon in this city, and have been in practice six years; was called in about eleven o'clock on Friday morning to attend Richard Richardson; saw Mr. Webb, who told me that a person was ill in the next room in the small pox, and at the patient's request he had been attending him; I went up to the bed-side of the deceased, and found the hands livid, and the whole body in a state of perspiration, and laboring under the small pox. From the state that Richardson was in, I apprehended that it would end fatally. I understood Mr. Webb to say that he had given him some of his pills. The night-table contained a large quantity of liquid evacuation. In about two hours and a half I found the deceased in a dying state. I believe he died in about half an hour. I afterwards held a *post-mortem* examination. I found the left extremity of the stomach in a state of inflammation. To the best of my belief he died of small-pox, very probably aggravated by drastic purgatives. Morison's pills would, in my opinion, tend to accelerate death. I should think that the window being open would not be attended with any disadvantages.

By the JUDGE. In my opinion the death of the deceased was accelerated by the treatment he had undergone.

Wm. Matterson. I am a surgeon, and have practised for twenty-nine years. As to the treatment of patients in small-pox, I consider they ought to have purgatives of the mildest description. In this case saline purgatives ought to have been used.

Cross-examined by Mr. ALEXANDER. The cardiac extremity of the stomach was inflamed. There have been very numerous cases of small-pox in York lately; not one has proved fatal within my practice. I would have had the window open the whole of the time. I think that the deceased's death was accelerated by the treatment he received.

Dr. Belcombe. I am a physician, and have been in practice about twenty-two years. I saw the deceased, and am of opinion that the small-pox was heightened by the treatment he received.

Cross-examined by Mr. POLLOCK. Inflammation of the stomach is not often attendant on the small-pox, but is occasionally. It appeared to me that some acrid substance had been given.

By the JUDGE. I think that death was accelerated by the treatment he received.

Dr. Wake. I have been in practice about twenty-six years. From the inflammation of the stomach it struck me very forcibly that if I had not known the cause of the deceased's death, I should have thought that rank poison had been taken. I attribute the inflammation to the administering of highly acrid drugs."

When the case for the prosecution was gone through, the defendant's counsel submitted, that there was no evidence that the prisoner, Webb, acted

upon any other motive than a sincere desire to relieve the pain of the young man, and therefore he conceived it was not a case to go to the jury. His Lordship, however, thought differently.

For the defence, it was attempted to be shewn, that the "*universal pills*" are altogether harmless:—and for this purpose, Mr. Morison's son was sworn, that "he had taken the pills by hundreds—thirty per day for three months successively." Many other witnesses deposed to the same effect, and after several respectable persons had borne testimony to the general good character of Webb.

"Lord LYNDHURST in charging the jury said, the prisoner, Joseph Webb, was charged with the commission of the crime of manslaughter,—with having caused the death of Richard Richardson. His Lordship had already stated what he conceived to be the indisputable law upon questions of this kind. If a person of gross ignorance of science, and the practice of medicine, takes upon him to administer an active medicine, and particularly to a person laboring under severe disease, and death ensues, he is guilty, in point of law, of the crime of manslaughter. His Lordship then recapitulated the evidence on both sides. They would take the evidence on the one side and the other, and say, was the death of the young man accelerated by what had been done by the prisoner at the bar, and were they satisfied that the course he had pursued had betrayed gross ignorance? If they were so satisfied, they would find a verdict of Guilty; but if they entertained any solid, real, reasonable doubt, the prisoner would be entitled to a verdict of acquittal.

'The Jury, after retiring for about half an hour, returned a verdict of—*Guilty*, but recommended him to mercy."

This verdict appears to have created quite a sensation amongst the Morisonians. In *Bell's Life in London*, for August 3d, 1834, we find the following advertisement, evidently proceeding from the "British College of Health."

"*Mr. Webb, of York, first martyr to the Hygeian cause.*—The public, and those friendly to the British College of Health Hygeian System and Practice, and to medical liberty, or the natural right of every person to advise with and be treated as they like, both in health and disease, are respectfully informed that a *penny subscription*, and no more, will be received throughout the country from those friendly to the cause, to present Mr. Webb with a piece of plate, on his liberation from his sentence. The agents of the British College of Health will receive subscriptions, and transmit them to the College. N. B. A list of the subscriptions to be kept by all agents, and friends to the cause."

Facts, like those detailed in the published accounts of these two trials, will open the eyes of the public far more speedily and effectually than any opposition proceeding from the Medical Faculty, who are looked upon as interested. The origin of quackery is in the ignorance and credulity of the people, and the only way to diminish the evil—to eradicate it is, we believe impossible—is to diffuse the necessary information amongst them. This must, however, be a long and almost impracticable process. In the meantime, such cases as those we have cited may act as salutary cautions, to such as might otherwise become the dupes of designing representations.

Since the above was written, the London "Lancet," for 23d of August last,

has came to hand; in which is an account of another case of "poisoning," by Morison's pills;—a verdict to this effect having been rendered by twelve jurymen out of eighteen. A young girl, aged 15, at Pershore, was in good health on the 10th of July. Her mother—imagining she required some aperient medicine—sent her to purchase a box of "Morison's pills," of which she gave her two at bedtime, and took two herself. The mother suffered great pain all night, but got better in the course of the following day. Her daughter was also in great pain all the night, as well as on the day after, during which time the pills operated with violence three times. The following night was one of great suffering. Mr. Francis Davies was now called in, who found her laboring under enteritis; of which she died. Mr. Davies gave it as his decided opinion, that the pills were the cause of death.

That these unhappy cases—unhappy in numerous respects—should have had their effect upon the multitude of pill consumers—estimated by the Morisonians at one million—is not surprising; and it is gratifying to the philanthropist to learn from the best possible authority—the Hygeists themselves—that "the fears and apprehensions of many persons are so unaccountably excited and worked upon by such an occurrence as the present (Webb's case), that many of them would not take another dose of Morison's pills, though they have before reaped the greatest benefit from them."

Should our journal be so fortunate as to meet the eye of certain of our good citizens, both male and female, we would especially recommend to them a careful perusal of the above observations, as they may thereby learn something of the hazard they themselves incur, and by their good intentions, expose their friends to, by their indiscriminate employment and prescription of certain quack pills, of the composition and virtues of which they know nothing. It is much to be regretted that some of the clergy, in their misguided zeal to wage a crusade in favor of quackery, have so far descended from their high and sacred calling, as to use their authority and influence in inducing those whose confidence they possess, to jeopard their lives by the employment of pills and nostrums which administered under circumstances of which they are incompetent to discriminate, cannot but prove murderous in their consequences. These acts, we are willing to believe, are the result of good intentions, yet the exercise of them cannot be too strongly reprobated, as it goes directly to endanger human life.—*Ed.*

FRENCH PILL!!

Mr. Editor:—Having been informed, that some physician or apothecary of this city, is in the habit of compounding and dispensing a certain pill, denominated, *par excellance, French Pill*, which possesses the extraordinary powers of purging the system of all its bile and impure humors, with infinitely more success, and less inconvenience, than can be done by calomel, or any of the numerous compounds of the day, I should esteem it a special favor if yourself, or any of your correspondents could give me any information on the subject, as I doubt not it might be made to supersede Morison's famous preparation, which at present enjoys an undivided reputation.

With respect, yours, Inquisitor.

We regret our inability to furnish Inquisitor with any satisfactory answer to his inquiry. We have heard something of the French pill, but our information is indefinite. We trust, however, that some of our correspondents may be able to enlighten him on the subject.—*Ed.*

Notices and Acknowledgments.

We have received from professor Warner, of the University of Virginia, a copy of his Introductory Lecture, delivered at the opening of his Course on Anatomy, Physiology and Surgery. It is creditable to the author, and we doubt not was well received by his audience. The typographical execution, however, is disgraceful.

Cholera.—This formidable pestilence, which was rife in our city during the early part of November, has, we believe, entirely disappeared. We have not heard of a case for ten days, and the last weekly report of the board of health only represents 4 deaths for the week.

Messrs. Carey, Lea and Blanchard have in press, and will publish in a few weeks, A Treatise on the Influence of Atmosphere and Locality; Change of Air and Climate; Seasons; Food; Clothing; Bathing; Exercise; Sleep; Corporeal and Intellectual Pursuits, &c. &c. on Human Health; constituting Elements of Hygiène; by Robley Dunglison, M.D. Professor of Materia Medica, Therapeutics, Medical Jurisprudence and Hygiène in the University of Maryland. We hope to receive a copy of this work in time for analysis for our next number.

We have to acknowledge the following periodicals received within the month.

Annales de la Medécine Physiologique, for June. (*In exchange.*)

Journal des Connaissances Medico-Chirurgicales, No. 11, 12, for August and September. (*In exchange.*)

Journal Homœopathique, Nos. 13 and 14. (*In exchange.*)

American Journal of the Medical Sciences, for November. (*In exchange.*)

The Boston Medical and Surgical Journal, No. 12—15 for November. (*In exchange.*)

The Boston Medical Magazine, Nos. 1—7, new series, for August, September and October. (*In exchange.*)

The Western Medical Gazette, for October. (*In exchange.*)

The United States Medical and Surgical Journal, Nos. 1 and 2, for August and September. (*In exchange.*)

This is the title of a new monthly, which has recently made its debut in New York. We have long been surprised that our brethren of the great city, should not make an effort to sustain a periodical amongst them, and as one has now made its appearance there, we hope they will extend to it their encouragement and support. We presume, from the device of an unsheathed lancet which figures upon the cover, that our cotemporary proposes to administer a little sanguinary depletion. We can assure him that the medical body politic stands in need of that remedy.

NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL SCIENCE.

VOL. I.] JANUARY, 1835. No. 4.

ARTICLE I. *Reports of Cases in Surgery, with remarks.* By N. R. SMITH, M.D. Professor of Surgery in the University of Maryland.

CASE I. *Lithotomy. Secondary Hemorrhage on the 6th and 8th days. Inflammation of the Pleura on the 12th day. Cerebral irritation on the 16th day. Death on the 20th.*—In November last, I was requested by my friend Dr. A. Clendinen, of Old Town, to visit and examine Mr. James O'Mealy, a dealer in wood, aged 37, supposed to be affected with stone in the bladder. Mr. O'Mealy had, as I learned, been for some time under the care of a practitioner of surgery, who had ascribed his symptoms to a supposed stricture. For this he had been treated, the bougie having been employed for several weeks. He was finally discharged as cured by his medical attendant. He, however, continued to suffer as before, and at length applied to Dr. C. who, persuaded that there existed a calculus, requested my assistance.

On attempting the introduction of the sound, I found it to pass every portion of the urethra without impediment, nor was I able to discover any evidence of the existence of disease in any part of that membrane. No sooner did the instrument enter the bladder, than it encountered a stone, lodged in the bas-fond of the organ. As the patient complained much during the examination, I made it as brief as possible, not seeking to ascertain the magnitude of the stone with any degree of precision.

Mr. O'Mealy then signified his intention of submitting to the operation of lithotomy in the course of a few days. Consequently I was soon notified of his determination to undergo the operation on the 26th of November.

My patient had been laboring under symptoms of stone for three years. He was in other respects apparently in tolerable health, but he possessed a sensitive and susceptible system. There was no evidence that the bladder had undergone any change of structure. He was able to be upon his feet some part of almost every day before the operation, although he suffered much. He also attended to his business, which was not laborious. I undertook this case, therefore, with great confidence in its favorable result—scarcely ever, indeed, had I felt less solicitude in regard to any case requiring a similar operation.

I performed the operation at 12 o'clock, in the presence of Dr. Clendinen and two of my pupils, Messrs. Stewart and Stone. The method followed was such as I have heretofore described in this journal. No particular difficulty occurred. There was a little delay in the extraction of the calculus, owing to its being bedded in the bas-fond of the bladder, behind the prostrate gland. It was necessary to use a pair of curved forceps, and to elevate the handles very much before I could fairly seize it. This, however, was accomplished without much difficulty, and when once seized, it was extracted with but little delay and but little force. The stone was large, weighing but little less than two ounces, and having nearly the size of a hen's egg—its form a flattened oval.

After the extraction of the calculus, there occurred no more bleeding than is usual after this operation, although it flowed guttatim for fifteen or twenty minutes after he had been placed in bed. What bleeding did occur was apparently rather venous than arterial, and it was not found necessary to secure any artery. The system appeared to have suffered no considerable shock from the operation, the countenance exhibiting but little distress, and the pulse being but little subdued. In the course of an hour he became perfectly easy.

On visiting him at 4 o'clock, I found him still suffering but little; yet I felt some anxiety when I discovered that but little if any urine had flowed from the wound. On applying the hand to the pubic region of the abdomen, it was manifest that there was a slight degree of tumefaction there, and there was

not a little tenderness. Still there was no urgent necessity for interference.

At 7 o'clock a message from my patient informed me that he had been just then seized with severe pains and violent straining, which recurred every few minutes, and with increasing violence. I was not for a moment at a loss to account for these distressing symptoms, even before I reached my patient. It was manifest that the flow of urine by the wound had been obstructed by the lodgment of a coagulum, and that the bladder was now laboring ineffectually to relieve itself. Surgeons are well aware that such an occurrence is not unfrequent after lithotomy, and that prompt interference is necessary to give relief.

I provided myself with a straight canula, with large eyes like those of a catheter, and a little larger in diameter than that instrument. This I introduced along the wound into the bladder, which it reached with but little difficulty. It did not appear to encounter in its passage any very firm coagula of blood. On its entering the bladder, there was an instant gush, through the canula, of bloody urine, a considerable quantity of which had accumulated. No sooner had the urine begun to flow than the patient obtained complete relief, and in a few minutes he became perfectly tranquil. It was manifest from the appearance of the fluid that no recent blood had been poured into it.

Lest the same impediment should recur during the night, I deemed it most prudent to leave the instrument in the wound. He scarcely complained at all of its giving him annoyance, and the urine, at first bloody, before morning flowed colorless and without impediment from its orifice. In the morning I found it necessary to replace the instrument, its beak having been urged out of the bladder apparently by its contractions. His pulse was now about ninety beats in the minute, and of a good character in other respects. There was a little tenderness about the pubic region, but there was no tumefaction, nor sense of weight or fulness in the lower part of the belly. Our patient had taken as much food as was deemed prudent. Indeed, in all respects, we considered his situation to be singularly favorable. After the lapse of a few hours, I withdrew the instrument altogether from the bladder, the urine continuing to flow from the wound with facility. On the third day it became necessary to open the bowels of the patient, and this was promptly effected

by the employment of the Oleum Ricini. On the 4th day there was still nothing forbidding in his condition, but there were signs which might perhaps be regarded as premonitory of mischief. He complained of unpleasant sensations in the head, particularly of a sense of tightness across the forehead; there was some febrile thirst, deficiency of appetite, pulse not much more frequent than before, but more tense; chilly sensations were also experienced whenever the bed clothing was raised for the purpose of observing the wound.

On the evening of the fifth day, I was called to my patient in haste, on account of serious bleeding from the wound, and distressing symptoms occasioned thereby. On reaching him, I found that arterial blood was issuing from the wound drop by drop, and that a considerable coagulum had accumulated on the cloth beneath him. His countenance was somewhat pallid, his pulse small and frequent. He informed me that he had felt, for two hours before blood flowed externally, a sense of heat and fullness in the lower belly, and the bladder had been during that time making ineffectual efforts to rid itself of its contents. The spasmodic efforts which it was now making were powerful and distressing. I immediately introduced the canula as before, and drew from the bladder about eight ounces of fluid blood and urine. After the evacuation of that which had accumulated, arterial blood continued to flow from the canula guttatim, until the tube became obstructed by the coagulum. It was manifest that considerable clots of blood remained in the wound and the bladder.

With a common syringe which was at hand, I now threw cold water through the canula into the bladder, in a brisk stream, endeavoring thereby to break up and dislodge the coagula there formed, and by the influence of cold to constringe the bleeding vessels. I continued to repeat the injection until at length the water returned nearly colorless, and it was manifest there was no longer any effusion of blood. Soon after, I administered an enema, by which an evacuation of rather hard feces was obtained from the bowels.

The patient now again became comfortable, the water flowed without impediment from the wound—the sense of fulness and heat had entirely passed away—in short, he appeared to be doing as well as before the accident had occurred.

I think it sufficiently manifest that the blood in this instance

flowed from vessels situated in the inner orifice of the wound, where it penetrated the bladder. The fact that the blood had accumulated in the organ for some time before it flowed externally, and that the fresh blood flowed by the canula when its eyes were within the bladder, justify the inference. I should have stated, also, that I in vain examined the internal wound for any bleeding artery. It is also manifest that this man must have labored under the hemorrhagic diathesis, and was affected, for some hours before the effusion of blood, with symptoms that might be regarded as premonitory of that event. I flattered myself, however, that by prudent management, a recurrence of the bleeding might be avoided; but in this I was disappointed. On the night of the 8th I again received the unpleasant intelligence that my patient was bleeding. On reaching him, I found him suffering from the irritation caused by the accumulation of coagula in the bladder, and also from loss of blood. There were frequent and ineffectual contractions of the bladder and abdominal muscles—there was some degree of tumor in the pubic region, and much tenderness—the pulse was one hundred and forty in the minute, quick and feeble—the countenance was exanguious and anxious—he was restless. No recent blood had yet flowed externally, but coagula had been discharged from the wound. I immediately introduced the canula and emptied the bladder of the fluid blood and water which it contained. I then prepared a strong solution of alum, which, with the syringe, I threw into the bladder, and then allowed its reflux through the canula. In order that the astringent liquid might certainly come in contact with the bleeding vessels, I then injected the bladder, and quickly withdrawing the canula, allowed the liquid to escape along the wound. I then introduced the canula so far into the wound as that I supposed its eyes to be engaged in the wound of the prostrate, and repeated the injection, the liquid returning by the wound. The Tinct. Digital. with a solution of Nitr. Potass. was now directed.

These means, which were attended with but little suffering to the patient, effected the immediate suppression of the hemorrhage, nor did it afterwards recur. The distressing sensations in the region of the bladder were also relieved, and after the lapse of a few hours limpid urine began again to flow. My patient, however, had become much reduced, and, indeed, brought into a state of anæmia. His pulse remained frequent

and small, his countenance was pallid, and there was horripilatio whenever the bed clothing was disturbed. There was manifest also that tendency to unequal excitement and sudden local determinations of the circulating blood—those vicissitudes of action also, which often occur in a state of anæmia, and which are described by Mr. Travers, and by Marshall Hall, as often arising from great loss of blood. The hands and feet were disposed to be at times hot, and at other times cold. The head was hot and still affected in some degree with a sense of constriction across the brows.

My patient informed me that for some hours previous to the last hemorrhage, there had existed an urgent sense of burning heat in the lower belly, as well externally as internally. I now directed a cloth, wrung out in cool water, to be laid upon the pubic region, and to be frequently renewed, especially whenever the sense of heat should recur. At the same time I directed sinapisms to the extremities, and was careful to preserve a uniform temperature of the feet and hands. Deeming it necessary to exercise some alterative influence on the system, through the medium of the digestive organs, I now employed at intervals small doses of the protochloride of mercury, but these were soon discontinued, as I learned from my patient that his system had, on former occasions, been readily impressed by one or two small doses of this agent. Any thing like the mercurial erethism was of course to be avoided, under existing circumstances. The bowels were kept soluble, and I now allowed my patient animal food and small quantities of London porter.

I had occasion, at this time, to regret the loss of the advice of my friend Dr. Clendinen, (Mr. O's family physician,) he being confined by sickness.

Under this plan of treatment, my patient continued free from any symptoms of irritation in the region of the bladder; the wound digested well, and the process of cicatrization commenced. The constitutional symptoms also improved, the pulse becoming in some degree more firm, though still seriously frequent. He took food without aversion, but not with appetite—his sleep was much disturbed. On the evening of the 11th day, I found him complaining in some degree of stitch in the side—in the region of the heart. I directed that should it persist, he should discontinue his porter, which he was taking in but small *quantities,* and his animal aliment—that a sinapism should be

applied over the region of the pain, and that, if the distress increased during the night, this should be replaced with a blister. I also directed sinapisms to the extremities, and opened the bowels effectually with an enema.

Before morning I was again summoned, and found my patient suffering excruciating pleuralgia, with great embarrasment of respiration, hurried pulse, coated tongue, febrile heat and urgent thirst. I now found myself perplexed in the extreme. The great loss of blood my patient had suffered, and the state of anæmia which had been induced, would have appeared to deprecate the employment of the lancet or other active depletory measures. On the other hand, the symptoms of inflammation of the pleura or pericardium, were unequivocal, and so urgent as to allow of no temporising measures. Unwilling to resort to the lancet, however, I immediately applied dry cups to the side affected, and over these laid cloths wrung out in hot water. I renewed the application of counter-irritants to the extremities, and to other parts of the surface. I continued the employment of the solution of nitre and the tincture of digitalis. These means were ineffectual. I then applied the scarificator, and with a single cup took a small quantity of blood, but with no benefit. I then felt myself driven to the use of the lancet, and took from the arm about eight ounces of blood. This was immediately followed by a mitigation of the distressing symptoms, and was unaccompanied by any manifest increase of exhaustion. Calomel in divided doses was repeated.

Late at night my friend Dr. Dunan saw the case in consultation. There still existed some pain in the side, not a little embarrassment of respiration, cough and expectoration of bloody mucus. Dr. D. thought it expedient to take a small quantity of blood from the side by cups. In this I acquiesced, and it was done. There being at this time considerable nervous agitation, I directed an enema, composed of an emulsion of assafœtida, with ten drops of Tinct. Opii. Milk and water were allowed as at once the drink and aliment of the patient. Indeed, it should have been stated that, from the first, this had been pretty constantly used, and at times exclusively, his stomach refusing other articles. Some little delusive improvement now took place in the condition of our patient, but nothing which could be termed convalescence; his pulse remained frequent and irritated, though weak, a character of pulse always exceed-

ingly alarming, indicating a great degree of disease, and at the same time extreme exhaustion. No irritation, however, existed in the organs on which the operation had been performed. The integuments of the sacrum and nates were, it is true, somewhat excoriated by the urine which flowed from the wound, it being difficult, in his feeble state, to cleanse the parts as often as was desirable. I, in a great degree, obviated this source of annoyance, by covering the sacrum and hips with Griffitt's adhesive plaister, which not only defended the parts from the urine, but also from the friction of the bed clothing.

The case progressed thus till the night of the 18th day after the operation, when there occurred an aggravation of febrile symptoms and a degree of delirium, which shewed that the brain was now participating in the irritation. On the 19th these symptoms persisted, and then occurred, also, intolerance of light, subsultus tendinum, continued vigilance, an extremely haggard aspect of the countenance. He took food, however, with apparently more relish than he had done for some days, and there remained as much strength of action as had existed for some days before, with the same indications of local inflammation, perplexing us in regard to the treatment of the case. On the evening of this day more marked collapse took place. Dr. Clendinen then saw the patient, and advised the immediate employment of stimulants (wine whey) with the sulphate of quinine, for the purpose of sustaining the powers of life, now evidently flagging. These were well received by the stomach, but the organ had but little power to respond. When liquids were swallowed, they produced a gurgling sound on entering the stomach, like that caused by a liquid falling into an empty vessel.

Our patient continued much in this state till the night of the 20th day, when he expired. No opportunity for post mortem examination was obtained.

It is a little remarkable that of the twenty-four individuals on whom I have performed the operation of lithotomy, this man of all others was the one whom I least expected to lose. Had I been more familiar with the peculiarities of his constitution, I might possibly have discovered something which would have given me warning. Mr. O'Mealy was a man of temperate habits, and of common fortitude. His constitution had never been shattered by protracted disease, and yet he had suffered

enough from the presence of stone, to accustom his system to irritation, and render him the better able to endure the shock of the operation. I have suspected that this patient rendered his system in some degree irritable by too rigid abstinence, which he had deemed it necessary to observe before the operation, for while a temperate regimen is of great importance by way of preparation for the knife, inanition is certainly productive of an unfavorable state. Mr. O. had more than observed the instructions given him in this respect.

I should by no means omit to mention, that about the time that this operation was performed, an epidemic influenza was beginning to display itself in Baltimore. Of several patients on whom I had, about the same time, performed surgical operations, not one escaped an attack of the influenza. These facts should impress us with the importance of avoiding, if possible, to perform important operations during the prevalence of any epidemic cause of disease.

Case II. *Ligature of the Brachial Artery for Veno-arterial Aneurism.*—A B, a colored man, aged twenty-six, called for my advice, (November 25th,) in relation to a tumor situated in the bend of the arm. At first touch it was manifestly an aneurism. An eminent medical friend had previously examined the case, and learning its character, had referred the patient to me.

The disease had resulted from an accident in bleeding, which had occurred in the hands of a gentleman remarkable for the neatness with which he usually performs phlebotomy. The accident was owing to the local relations of the parts concerned being remarkably different from those which usually exist. It was the median-cephalic vein which had been opened, but this vessel lay much lower than is usual—that is, nearer to the inner condyle; while the median basilic was very short. The brachial artery, on the other hand, lay nearer than usual to the radial border of the arm. We entertain but little apprehension of wounding the brachial artery when we strike the median-cephalic vein, and this undoubtedly was the cause of the occurrence in this instance. The artery was wounded through the vein and directly beneath it. The blood gushed rapidly at the time, but its flow was soon embarrassed in consequence of the formation of a thrombus. A compress was finally applied, and, although bleeding in small quantity occurred several times, yet the hemorrhage was never serious. The part was a good deal

swelled at the time, and painful. At length the inflammation disappeared, and there remained a pulsating tumor. At the time it was first examined by me, it had the magnitude of the half of an egg, and had a distinctly circumscribed cyst. The vein was evidently concerned in the tumor, but to what extent the tunics of the vein entered into the walls of the aneurism, it was by no means easy to determine. It appeared to me, however, on making a most careful examination, that the principal part of the cyst was formed in the cellular tissue, intervening between the artery and the vein—that the inner orifice of the wound in the vein had become expanded, and its margin incorporated with the cellular walls of the aneurism.

The peculiar aneurismal thrill was very manifest in the pulsation of the tumor. At each throb the blood was forcibly injected into the vein, suddenly expanding it both beneath and above the tumor. Beneath, however, this swelling of the vein extended no further than to the first valve, which was half an inch from the tumor. Above, the expansion of the vein was obvious half way up the arm, and the thrilling rush of the blood was distinctly felt at each pulsation of the heart. Pressure upon the brachial artery, above the tumor, arrested the pulsation. Pressure upon the tumor emptied it of its contents. The walls of the tumor toward the surface were thin.

The compress having been already ineffectually employed in this case, and the tumor obviously increasing, I immediately advised that the ligature of the brachial artery should be performed without delay. For this operation he repaired to the Baltimore Infirmary, where I was then officiating as surgeon. Preparatory to the operation, I caused blood to be taken from the arm—prescribed a low diet and repose for two or three days.

The operation was performed in the presence of the medical class of the University of Maryland, and with the assistance of the pupils of the house. The patient was seated in a chair, and his arm was extended upon a table. The incision was made as usual along the border of the biceps, the fascia of the arm being laid bare at the first stroke of the knife, and opened by the second. On introducing the finger into the wound, I felt the pulsations of two arteries—the one in the usual position of the brachial, close beneath the border of the biceps—the other toward the ulnar border of the arm, but not remote from it.

On compressing the latter, the pulsations of the tumor did not cease, but when this was practised upon the former, they were instantly commanded. The pulsations of these vessels were so equally strong that I immediately inferred that, in this instance, the division of the brachial had occurred at a higher point than usual, and that only the radial branch was concerned in the operation. With this impression I immediately applied the ligature to the artery beneath the biceps. The pulsations of the tumor at once ceased, its volume diminished, and it became flaccid. A silk ligature was employed, one extremity of which was left hanging from the wound. The incision was very accurately closed by means of adhesive strips—a compress was applied to the tumor, and a roller to the member, from the hand to the shoulder. The patient was kept in a tranquil state. At the same hour of the next day, the tumor was found, on examination, to pulsate feebly. There was also a pretty strong pulsation in the radial artery, at the wrist. The brachial artery was also found to pulsate slightly, where it merged itself in the tumor. I could not now feel the pulsation of any artery toward the ulnar border of the arm, which could be regarded as the ulnar artery, nor were the pulsations of the ulnar at the wrist stronger than those of the radial, and I now came to the conclusion that the collateral vessel, which I so distinctly felt during the operation, was the anastomotic, considerably enlarged in consequence of the circulation in the brachial. There had occurred no visible diminution of temperature in the limb. The bandage was re-applied and kept wet with cold water.

On the third day the bandage was again removed, and we were gratified to discover that there now no longer existed any pulsation in the tumor, although it was still manifest in the artery both above and below it.

On the fifth day there was still no pulsation in the tumor, and it had now become quite hard and incompressible. There was not much tenderness to the touch, nor had the patient experienced much pain, though it was occasionally such as to disturb his rest at night.

On the 13th day the ligature came away. In the mean time complete reunion of the wound by adhesion had taken place, and he had scarcely felt a sensation where the ligature had been applied, till the present time. By any prudent effort we could not now, by pressure, force any fluid out of the cyst into the

artery, or in any measure diminish its size. It was manifest, therefore, that the blood contained in the cyst had now formed a firm coagulum, and that we might confidently expect its ultimate obliteration.

On the 20th day, the patient complained of severe pain and tenderness in the tumor, and evidently a slight degree of inflammatory swelling had taken place in its base. I conjectured that suppuration of the cyst might be about to happen, in consequence of the coagulum being so thickly covered with integuments. I directed a poultice to be applied to the part, and this to be compressed with the bandage. In two or three days the inflammation was wholly dissipated, and I found on comparing the tumor with a cast which I had made of the part before the operation, that it had lost half its original size. It was perfectly free from pulsation.

ART. II. *Case of Salivation from the administration of Iodine.* By DR. B. MACKALL, of Calvert county, Maryland.

IN Sept. 1834, I was called upon to prescribe for Mrs. W. who was laboring under an enlargement of the spleen. This lady was of what is denominated as bilious temperament; lived in a malarious district; and had, as a matter of course, been subjected to frequent salivation. Two months previous to my being called to her, she had suffered a slight attack of remittent fever; for the cure of which she had been profusely salivated.

When I first saw her, the case presented the following symptoms: her tongue was clean and moist, and except a slight degree of redness around the border, presented no morbid appearance. Her pulse was small, frequent, and irritated; appetite good, bowels regular, and evacuations healthy. Her spleen filled the whole left hypochondrium, and was extremely hard. Under these circumstances I administered the tinct. iodine, in doses of eight drops, thrice a day. In four or five days from the commencement of this course, her tongue became furred; her gums very sore, and a most profuse ptyalism took place, accompanied with strong mercurial fetor. The use of the iodine was suspended for two weeks, in which time the ptyalism ceased entirely. In a few days I resumed the use of the remedy, with the same result; but in a very much slighter degree.

The opinion which I formed at the time of the case, was, that the iodine, by increasing the activity of the absorbents, had caused a portion of mercury to be taken up, which had been lying dormant. And I still think that the ptyalism could have been produced only by the absorption of mercury.

ART. III. *Observations on Chronic Gastritis and Duodenitis, and especially on those conditions usually denominated Dyspepsia, Indigestion, &c.* By the EDITOR.

THERE is not, perhaps, in the whole range of human maladies, one that is less understood, and consequently oftener submitted to improper treatment, than chronic inflammation of the mucous membrane of the stomach and duodenum, and the multifarious complications with which it is frequently associated. Nor is there any one more calculated to alloy the pleasures of life, and entail upon its victims a greater amount of mental and corporeal misery. The modern investigations of pathological anatomists have, it is true, done much to elucidate these apparently protean diseases, yet there are unfortunately too many, who, discarding the lights derived from that source, content themselves with plodding on in a blind empiricism, and who, in the vague term dyspepsia, find a solution of all the grave and difficult questions of pathology which present themselves in connexion with a state of chronic inflammation of the digestive organs. Dyspepsia, which has thus been erected into a disease, is too commonly regarded as synonymous with debility of the stomach, the bowels, or the liver. Tonics, therefore, are prescribed to combat this imaginary enfeebled state of the organs; cathartics to remove the constipation and torpor of the bowels; antacids to correct the acidity of the product of the imperfect digestion which takes place in the stomach; and blue pills and aperients to bring away bile from the torpid and congested liver. Yet the practitioner little suspects, that in hundreds of instances, while he is doing all this, he is by every dose he administers, exasperating a local inflammation, and adding intensity to the malady he is exerting himself to remove. He is often deluded too, by the effects of his prescription;—for finding that his patient sometimes experiences an amelioration of his symptoms

after the use of a tonic, a cathartic, or a blue pill, he imagines himself in possession of a correct opinion of the case, when in reality the relief is only temporary, and induced at the expense of the suffering organs. It seldom continues long under such a course; and if the system of perturbation be persisted in, as it too frequently is, will soon be followed by redoubled sufferings,—the powers of the organization only securing for the individual an occasional respite from uneasiness, in proportion as they may be able at intervals to make a momentary triumph over the aggressions, which are made upon the diseased tissues by the incendiary remedies of the physician. At length these powers become too much impaired by the serious organic changes which are developed in the tissues, or instruments, through which they act, to afford even a momentary respite from suffering;—the purgatives, the blue pills, and the tonics, cease to afford the customary relief from pain and uneasiness, and the next resort is to the long list of specifics, or anti-dyspeptics, upon each of which the afflicted patient rests a vain and delusive hope, which is only supplanted by failure, to be succeeded by some new remedy of still fairer promise. While the physician is thus plying in succession, the immense farago contained in his armamenta medicarum, the sufferings of his patient proceed with a steady pace; his emaciation also increases, until finally his patience becoming exhausted, or his confidence in his attendant being destroyed, he throws himself upon the mercenary attentions of some quack, who fattens upon his credulity, or he seeks relief from a visitation to some watering place. Fortunately for himself, he often adopts the latter resolve. Fleeing the incessant irritation of medicine, and throwing himself upon the hands of nature—enjoying her pure and invigorating atmosphere, and partaking of her mild and simple medicines, as they come ready prepared from her great laboratory, he not unfrequently forgets his sufferings, and feels again the glow of health, and the return of his long lost energies. No where is the important maxim inculcated by Hoffman, "*fuge medicos et medicinam*," more applicable than in this disease. The almost indiscriminate practice of purgation and blue pill, which has prevailed within the last twenty years, upon the authority of Hamilton and Abernethy, has been productive, perhaps, of more mischievous consequences in the treatment of these chronic affections of the stomach and bowels, than the good it has produced in the cases to which it

is applicable. It would seem, indeed, as has been well remarked by Dr. Stokes, in his valuable lectures on the practice of medicine, that in the hands of those who have adopted these principles, the whole practice of the healing art might be reduced to two points: "a blue pill at night, and a good pot of fæces in the morning." Happily this species of empiricism is gradually losing ground, under a more strict regard to the pathological states of the organization; and a considerable amelioration in the therapeutics of chronic diseases has been already realized. There are still many, however, who remain wedded to the old routine, and too much pains cannot be taken to impress upon the minds of the profession at large, the important truth, that a large proportion of those diseases which have been regarded as the product of debility, are chronic phlegmasiæ of the most exquisitely organized of the vital structures, which if not timely arrested in their progress by appropriate antiphlogistic treatment, will march with slow, but certain pace to disorganization and death. It is under this conviction, deduced from no small share of painful experience and disappointment, that we are induced on the present occasion, to make chronic inflammation of the mucous membrane of the stomach and duodenum the subject of a few remarks.

A question which has been much debated of late years is, whether gastritis can exist alone, without being accompanied with enteritis. Broussais has adopted the negative in one of his propositions, affirming that inflammation of the stomach cannot exist without there being a similar affection of the intestines; and that in enteritis, the stomach is involved. The truth of this assertion has not been confirmed by subsequent observation. It is contradicted by our own experience, and we presume by that of most of those who have been much engaged in searching for the effects of disease in the organs after death. We have often met with cases of intense enteritis, when no evidences of gastritis were presented, either by the symptoms during life, or dissections after death; and Andral, and other pathologists have reported many such cases. It must, nevertheless, be conceded, that when the one or the other of these portions of the alimentary canal is affected with inflammation, there is a great proneness on the part of the disease to extend to the other; and in a majority of instances at least, the two sections become more or less extensively associated in the morbid process. Hence,

although Broussais' proposition is not rigidly true, it is of considerable importance, because it shows the necessity, in such cases, of not limiting our attention to too small a portion of the alimentary canal. It impresses upon us the importance of always reflecting upon the probabilities of there being a gastro-enteritis developed in the course of the disease, even though at its commencement, the symptoms may be such as to shew that it is confined to the mucous membrane of the stomach, or the intestines singly.

Chronic inflammation of the mucous membrane of the alimentary canal, like the acute forms of the disease, may be either diffused or circumscribed; or in other words, it may occupy a large extent of the lining membrane of the stomach and intestines, or be confined to a single point, or several points more or less isolated, of the one or the other. It is not our purpose to consider it in its most extensive relations on the present occasion, but merely to notice its more prominent characteristics, when it effects the mucous membrane of the stomach and duodenum. Even within these restricted limits, it may be general or partial. It may occupy the whole extent of the mucous membrane of the stomach and duodenum; it may be restricted to the one or the other of these organs; and finally, as regards the stomach itself, the inflammation may be diffused over the principal extent of its lining membrane, or may occupy either its cardiac or pyloric orifice, its greater extremity or cul de sac, or the course of its greater curvature. It is worthy of remark, that when the disease is situated within the one or the other of these portions of the organ, it is generally characterized by symptoms to a certain extent peculiar to each locality; and which it is important to distinguish, in order to avoid confounding the disease with an affection of some of the adjacent organs; as the liver, spleen, pancreas, colon, lungs, heart, &c.;—an error which is probably often committed by those who are not careful in their diagnosis.

The symptoms of the disease in either case, may be divided into those which are referrible to the stomach itself, and such as are manifested through its sympathetic relations. But whatever its situation, it may exist under different degrees of intensity; and the symptoms by which it is attended will present corresponding modifications.

Chronic gastritis, in a mild form, is generally attended with

a sense of uneasiness or oppression about the epigastrium, seldom amounting to pain or manifest tenderness, even on pressure; but very often consisting in a distressing sensation of hunger or emptiness, or a sense of gnawing about the stomach, which is effectually appeased for the time by taking food. This relief, however, is only of short duration. The food, which at first proves grateful to the stomach, soon offends it. Digestion is imperfectly performed; the organ becomes distended with flatus; frequent acid eructations take place, and after the lapse of an hour or two, the individual experiences a distressing sense of oppression across the epigastric and hypochondriac regions, as though he were too firmly constricted by a band or girdle passed around his body:—the sense of gnawing and craving for food returns; a general uneasiness and weariness of the muscular system is experienced; the palms of the hands, and often the whole surface of the body become dry and husky; the cheeks are often a little flushed; the frequency of the pulse is sometimes accelerated, or the artery beats irregularly;—the heart is often affected with palpitations, and is always easily excited by slight exercise, or the slightest mental emotions; and there is an almost incessant pulsation—sometimes violent, and generally irregular, in the epigastrium, which frequently adds to the patient's alarm, and always proves a source of great annoyance. The presence of food in the stomach very often gives rise to more or less headache, and not unfrequently occasions flying neuralgic pains in various parts of the body, especially about the thorax, between the shoulders, and sometimes even in the extremities. The individual is sometimes disposed to sleep after taking aliment, and frequently falls into unrefreshing slumbers, until awakened by the recurrence of the craving sensation of the stomach, or the unpleasant feelings excited by the imperfect digestion of that which he has already taken; and he often experiences an unpleasant sensation of dryness about the mouth and fauces; sometimes even considerable thirst, and is inclined to make frequent efforts by screatus, to dislodge a tough unpleasant mucus, which is disposed to form in the posterior part of the fauces and the upper part of the pharynx. In this grade of the disease, the tongue is in most cases but slightly furred, and is seldom very red upon the borders, or much contracted at the point. To this, however, there are some exceptions, as its condition is subject to considerable variety at different periods. A very common

one is, an enlargement and elevation of the follicles about its base; and if attention be directed to the crypts about the posterior part of the fauces, they will generally be found enlarged. The bowels are mostly constipated, and what fæces are voided, are frequently lumpy and exceedingly variable as to color, being often lighter than natural, but in many insances of a dark unhealthy appearance. The urine is generally scanty, and in many cases, deposites a whitish or pink sediment on standing. The other secretions are likewise very often materially deranged.

This grade of chronic gastritis steals on insiduously. At first, there is often so little disturbance, that the individual has no suspicion of the existence of any mischief. The frequent oppression and uneasiness which he feels about the stomach, associated as it is with an urgent craving for food, is apt to be mistaken for the natural calls of hunger, and the temporary relief afforded by the introduction of aliment, or stimulating drinks, into the stomach, serves to perpetuate the delusion, until the gradual development of more palpable sufferings apprizes him of the existence of disease. As, however, he is still able to pursue his avocations, and is not affected with fever, material loss of muscular energy, or manifest emaciation, he is apt to persuade himself that he is merely affected with a slight and temporary functional disturbance of digestion, and neglects his condition, until by repeated imprudence, all his symptoms become exasperated,—his disease takes on a greater degree of intensity, and multiplied sufferings conspire to impair his bodily health, and break up the equanimity and elasticity of his mind. It is in this manner, that a trivial chronic gastritis, insensibly developed, may go on increasing, until it assumes a more formidable character;—a result which is, moreover, often hastened by imprudence and improper treatment; for unfortunately it is too often the case, that as soon as the individual has his attention awakened to his symptoms, he takes alarm at the bugbear dyspepsia, and immediately sets to work, to drug himself with the usual farago of tonics, stimulants, and cathartics, which although they sometimes afford temporary relief, do not fail in the end to add fuel to the flame already existing.

Chronic gastritis may, from these causes, assume a more violent grade, characterized by a train of phenomena somewhat different from those detailed; or it may assume such a character from the

commencement. When this greater intensity exists, there is often pain experienced on making pressure over the epigastrium, and very generally, as soon as aliments and drinks reach the stomach. In these respects, however, much diversity exists. Sometimes, even when the stomach is much inflamed, no pain or tenderness can be discovered on pressure, and not unfrequently, under the same circumstances, individuals are able to take mild and simple aliments, without experiencing much uneasiness on their arrival in the stomach;—pain being only produced, when those of a solid or more irritating character are swallowed. In some cases, where no pain is felt on the aliment being first received into the stomach, it takes place after the lapse of a short period, in proportion as the excitement of the organ is increased by the continuous influence of the food. As chymification is imperfectly performed under such circumstances, an immense quantity of acidity and gas are apt to be generated during the process; and the stomach is greatly distended and harrassed with pain for some hours after taking food.

In many cases much more pain and distress is experienced, either from the first inception of the disease, or at some period during its progress. When the stomach is more intensely inflamed, or when its nervous susceptibility is preternaturally exalted, the food is rejected by vomiting, almost as soon as it is received, or it remains for a short time, until an additional degree of irritation is set up by the generation of more or less acidity in the organ, when it is thrown up, saturated with an acid so pungent, as to almost excoriate the fauces. In other cases, great difficulty is experienced in swallowing the aliment. The œsophagus seems to experience some obstacle to the transmission of the food into the stomach, either existing in the inferior extremity of that tube itself, or in the organ destined to receive it, which is at the same time so morbidly irritable, as to resist its introduction, or if it receives the mass, it is immediately returned by vomiting. In some instances, the individual, after making repeated efforts to swallow, continues to experience a sensation, as though the alimentary mass were lodged in some part of tho œsophagus.

This last symptom is a common attendant upon that form of chronic gastritis which is limited for the most part to the cordiac orifice of the stomach. If the inflammation be circumscribed to this point, there is not only difficulty of swallowing, but

the moment the food reaches the cardiac orifice of the stomach, a sudden pain or uneasiness is experienced, as though the mass had suddenly passed over an inflamed and irritable surface. Sometimes we have known individuals affected with this form of the disease, complain of an extreme sense of soreness throughout the whole tract of the œsophagus, rendering deglutition difficult and painful. If the other portions of the stomach be not affected, the full introduction of the food into the organ is oftentimes not attended with pain, the only uneasiness experienced being that which is occasioned while the mass is entering the cardiac orifice. Sometimes, however, and especially if much food be taken, the uneasiness or pain recur during the process of chymification, or are continued throughout the whole period of digestion, especially when much acidity or flatulency are generated, calculated to irritate the susceptible point of the organ, or whenever from the contraction of its muscular coat upon the alimentary mass, the latter is forced against the cardia, so as to irritate the inflamed portion. The same feeling is experienced whenever the individual eructates, and from whatever cause induced, it is often diffused over the lower part of the thorax, behind the sternum and the cartilages of the ribs of the left side, and not unfrequently shoots upwards from the vicinity of the uniform cartilage, between the shoulders, or even to the head. Chronic gastritis, located in the cardiac orifice of the stomach, more than any other form of the disease, is liable to be attended with sympathetic affections about the throat;—as redness of the mucous membrane of the fauces and pharynx, enlargement of the mucous crypts and the tonsils; an elevation of the large papillæ at the base of the tongue; inflammation of the lining membrane of the whole mouth, which sometimes assumes a diptheretic condition, or the development of superficial ulcers upon the tongue, cheeks, &c. Another symptom which sometimes proves very troublesome, when the inflammation is situated near the cardia, is an obstinate hiccup, which recurs frequently, and generally continues with great obstinacy, and sometimes with pain, for several hours. It arises from the direct extension of the irritation to the diaphragm, which is thus thrown into a state of convulsive action, whenever the irritation of the stomach is exasperated by the presence of food or other causes. It is remarked, moreover, by Broussais, that this form of partial gastritis very promptly influences the heart,

especially when it is highly susceptible or affected with hypertrophy, giving rise to palpitations. When it becomes very intense, it may also be attended with vomiting; but this rarely takes place, except where the inflammation is more diffused, and occupies a greater extent of the surface of the mucous membrane. If the disease be suffered to proceed without interruption, it is apt to terminate in ulceration, or degenerate into cancer,—the cardia, after the pylorus, being the part of the stomach most prone to this kind of degeneration. When this takes place, the lower orifice of the œsophagus is generally so much narrowed as to occasion great difficulty of swallowing, and in some cases, acute lancinating pains are experienced at the moment the food reaches the orifice of the stomach.

Another point frequently seized upon by the inflammation, is the pylorus, and when it is confined to this situation, the symptoms are somewhat different from those detailed above. The individual often feels a sense of emptiness, and even an urgent craving for food, which is swallowed without pain or uneasiness, and often remains in the stomach for some time before any disturbance or suffering is experienced. In the course of one or two hours, however, when the process of chymification has somewhat advanced, and it becomes necessary for the mass to pass through the pylorus into the duodenum, the miseries of the individual begin. More or less pain is then felt in the right hypochondriac region, behind the cartilage of the ninth rib, which is sometimes dull and obscure,—sometimes heavy and obtuse, but occasionally acute, burning or lancinating. The pain is sometimes limited to a small spot, which the individual can accurately define; but occasionally it is diffused more or less extensively over the hypochondriac region, or extends upwards into the thorax, to the point of the shoulders, and beneath the scapula, simulating the sympathetic pain of hepatitis;—or it diffuses itself along the intercostal spaces, resembling rheumatism, with which it is often confounded. At this juncture likewise, the individual is greatly harrassed with acid eructations and flatulence of the stomach; or vomiting takes place, and the half digested aliment, which proves the exciting cause of all this mischief, is ejected. Sometimes the expulsive efforts of the stomach are less violent, and instead of the whole of the food being thrown off, only a glairy mucous is vomited, or a considerable quantity of an acid or insipid fluid is brought up,

merely by eructation, or by feeble efforts to vomit. Under these circumstances, a portion of the aliment passes onwards into the duodenum, but its transit over the inflamed surface of the pylorus is productive of great pain and distress, and deprives the patient of all the comfort and satisfaction which he might otherwise derive from the digestion of his food. So great, indeed, do his sufferings sometimes become, that he has no respite from pain, except while fasting, and even then, he is a constant prey to a distressing sensation of emptiness and gnawing about the stomach. His dread of the misery which he is obliged to look forward to as the forfeit of indulgence of his appetite, often prevents him from taking food; and from this cause, together with the inability of his organs to digest it when taken, he becomes emaciated; loses all his bodily and mental energies, and gives himself up to perpetual misery and despair.

Chronic gastritis affecting the pyloric orifice of the stomach, is more liable than any of the other forms of the disease, to become affected with cancerous and other degenerations of the part of the organ implicated. The pylorus sometimes becomes so much constricted or narrowed, on account of changes taking place in the tunics of the organ, that a sufficient quantity of chyme with difficulty passes into the duodenum, to sustain the life of the individual; or the pain and disturbance attending its transmission are so great, that the greater part of it is vomited an hour or two after the commencement of the digestive process.

The termination of this disease in scirrhus or cancer of the pylorus, or the development of other degenerations in that portion of the organ, cannot always be with certainty distinguished. The enlargement of the pylorus can be generally felt, especially in emaciated subjects, through the walls of the abdomen, and is for the most part painful on pressure; the pain being occasionally very acute and lancinating when the tumor is pressed, and manifesting itself at the point of the shoulder, beneath the scapula, or in some part of the thorax, with all the acuteness of a prick with a knife or other sharp instrument. The vomiting exists in a majority of cases, and when the disease has terminated in ulceration, the materials thrown up are often mixed with blood—with a substance resembling coffee grounds, or with a fluid resembling chocolate. When this takes place, the skin becomes sallow and cadaverous; the eyes sunken and ghastly;

the emaciation increases rapidly, and death sooner or later terminates the sufferings of the individual.

Local gastritis affecting the pylorus is very apt to become more general; either extending upwards to diffuse itself over the greater part of the stomach, or downwards into the duodenum, giving rise there to a new train of symptoms.

In some cases of chronic gastritis, the inflammation is limited to the greater curvature of the stomach, or to its splenic extremity. An affection of this portion of the organ is also characterized by symptoms, which are somewhat peculiar. There is generally more or less pain in the left hypochondriac region, which is much aggravated during the process of digestion. Indeed the simple ingestion of the aliment is generally productive of considerable pain, or at least, more or less uneasiness, which sometimes diminishes or subsides after a short interval, but recurs with increased intensity after the process of chymification has continued two or three hours. When there is considerable inflammation, the food is often vomited immediately after it reaches the stomach, or it is retained for some time, and is afterwards ejected, when it has become more irritating, in consequence of the generation of a considerable quantity of acid. There are besides frequent eructations, as in the other forms of the disease, and in many cases the individual is harrassed with hiccup, especially after taking food, and experiences a continual burning pain extending from the region of the spleen across the epigastric region. More or less tenderness is, generally experienced on pressure in the same region, and the stomach is sometimes so much distended with flatus, that it produces a manifest protrusion of the walls of the abdomen in the direction of the greater curvature of the organ. In many cases, the pain is more circumscribed, and being confined to the region of the spleen, a superficial examination might lead to the supposition that it proceeded from a disease of that organ, or of the adjacent portion of the colon. A very common feeling is, that of a tight bandage drawn around the inferior part of the thorax, which imparts the sensation of a painful degree of constriction. Erratic pains are also sometimes experienced in the back, and sometimes in the left side of the thorax, or about the left shoulder. Palpitations of the heart are occasionally developed, but less frequently than when the inflammation attacks the cardiac orifice of the stomach.

Inflammation of this portion of the organ is not so apt to terminate in the development of scirrhus and cancer, as that which affects the cardiac and pyloric orifice; yet it very often gives rise to ulceration, pulpy softening of the mucous membrane, thickening, and other changes of texture of a serious character. It is also in this portion of the stomach that perforations most frequently take place, though there is no part of it in which they may not occur. The inflammation may likewise be communicated to the spleen or the colon, giving rise to adhesions between them and the stomach, and impressing upon them various changes by which their functions may be more or less embarrassed.

Chronic gastritis may come on in various ways. An individual who has been laboring under the acute form of the disease, may have it converted into the chronic, either by imprudence during convalescence, or by a neglect to persevere for a sufficient length of time in antiphlogistic remedies. This is frequently observed after gastritis from poisons, or the introduction of violent irritants into the stomach. The patient after experiencing a marked amelioration of all his symptoms—a subsidence of his fever, pain, thirst, vomiting, &c., is apt to think his disease cured; yet after the lapse of some time he discovers, that he does not gain strength—that his flesh does not improve, but his emaciation rather increases; that his digestive function is much disturbed; his appetite capricious; his bowels constipated; and that he experiences occasional pain and oppression about his stomach, especially after eating. He is affected with chronic gastritis, succeeding the acute form of the disease, and can only be relieved by a recurrence to antiphlogistic remedies.

In other cases, chronic gastritis is developed slowly and insiduously. It steals on insensibly, and the development of the mischief is not apprehended, until the functions experience so much disturbance, that their sufferings are proclaimed through numerous avenues. And so slightly does the stomach reveal any indications of suffering, that its condition is often not suspected, until considerable advances to disorganization have been made, and even then, it often happens, that attention is only called to it by the serious disturbance awakened in the remote organs and functions, through its intimate sympathies with them.

It may, as previously remarked, be confined to a part of the

organ, or implicate its entire extent; and these conditions may alternate with each other, the one or the other existing, according to the influences to which the organ is submitted, or according as it is operated on by those causes, which are calculated to increase or subdue inflammation.

The inflammation may, from similar causes, after having remained for some time chronic, be converted into the acute form; and instead of being confined to the stomach, it may extend to the intestines, to the liver, spleen, pancreas, lungs, peritoneum, or even to the brain; exciting various new complications, and developing new relations, which tend still further to increase its protean character.

Very intimately associated with chronic gastritis, is chronic inflammation of the duodenum. The two affections are, indeed, in a majority of instances, coexistent; the cases in which the inflammation is limited to the stomach, or to the duodenum exclusively,—being comparatively rare. There is, perhaps, no disease in which a mistaken diagnosis is more frequently committed than in this; and while inflammation of the pyloric orifice of the stomach is almost daily mistaken for inflammation of the liver, chronic duodenitis, from the situation of the pain and uneasiness in the right hypochondriac region, and the sallowness of the skin, together with the irregularity of the biliary secretion, which symptoms are developed by the sympathetic disturbance of the hepatic function, is very liable to be mistaken for chronic hepatitis.

It occurs under the same circumstances as chronic gastritis, but is more especially liable to attack those who have been for a long time addicted to the pleasures of the table, or who have been habitual worshippers at the shrine of Bacchus.

The symptoms of the disease are in some respects so analagous to those of chronic gastritis, as to often render it difficult to distinguish them. There is generally more or less uneasiness in the right hypochondriac region; often considerable pain, which is sometimes dull, obscure, and obtuse, but occasionally somewhat acute, and diffused over the whole region of the liver, and in some instances, over nearly the whole of the right side of the thorax. This pain is influenced by position, and is increased when the trunk of the body is so flexed as to occasion pressure upon the duodenum. Pressure made upon the course of that intestine, where it sweeps across the spine, will also re-

veal more or less tenderness, and sometimes acute pain, which extends to the spine, and upwards to the right shoulder. The uneasiness so often experienced on the introduction of food and stimulating drinks into the stomach, in chronic gastritis, is not experienced in this disease, and is not developed until two or three hours after a meal, when the stomachal digestion being completed, the chyme is passed into the duodenum. Nor is the individual affected, in a majority of instances, with eructations and vomiting, though the latter symptom, when the disease is intense, not unfrequently exists. It usually occurs three or four hours after eating, and is very apt to be induced after a debauch, when the individual, besides ejecting the contents of the stomach, has copious bilious vomiting. The passage of the food into the duodenum is also attended with a painful sense of burning, which follows the course of the intestine; and it has been remarked, that the individual sometimes complains of a sensation, which he compares to that which would be occasioned by a burning coal, the pricking of a thorn, an ulcer, a ball, or a living animal crawling upwards towards the throat, and embarrassing respiration.*

When the disease has continued for some time, the functions of the liver become disturbed, and in course of time, if relief be not obtained, its structure undergoes important modifications. At first the derangement of the hepatic function is merely indicated by some irregularity of biliary secretion. The bowels are often constipated, and the stools present an unnatural appearance. They are sometimes light, or clay colored—sometimes dark brown, greenish, or even black;—and not unfrequently, after the bowels have been for some time constipated, more or less diarrhœa takes place, attended with griping, and the discharge of thin watery, or mucous stools, containing a large quantity of yellow bile. This state is again followed by a torpid condition of the bowels and constipation, with a diminution of biliary secretion; and the two conditions thus continue to alternate throughout the whole progress of the disease, though constipation is much more common than the opposite state. The irritation of the liver, thus induced and perpetuated through the intimate sympathy of that organ with the duodenum, keeps up an increased determination of blood to the

* Boisseau, Nosographie Organique, tome i. p. 392.

portal system—the organ becomes the seat of considerable congestion;—its nutrition undergoes important modifications;—and after being at first enlarged and indurated, it gradually undergoes a process of atrophy;—becomes hard and compact in its structure, and is finally rendered unfit to perform its functions. With the development of these conditions, the individual generally becomes liable to hemorrhoidal tumors, which occasion him considerable inconvenience; but a sudden discharge of blood from them often relieves the uneasiness about the right hypochondriac region. The skin generally assumes a sallow hue from the commencement, and in the progress of the disease, it often becomes completely jaundiced. There is great sallowness of the conjunctiva of the eye, the vessels of which are generally enlarged and congested, and the individual is often much troubled with herpetic eruptions about the lips and face, which appear and disappear alternately, according as the inflammation of the affected organ is exasperated or ameliorated. If the disease be neglected or improperly treated, still more formidable consequences finally ensue:—after continuing perhaps for years, the organs eventually become so far impaired as to disqualify them for the performance of their important offices; the liver acquires such a degree of compactness and induration as to prevent the circulation of the blood through it; the gall bladder and ducts, are perhaps choaked up with biliary calculi; the spleen becomes hypertrophied; the pancreas is frequently diseased; the coats of the duodenum thickened and indurated—sometimes scirrhus; the bowels become so obstinately constipated that they are never moved, except by drastic medicines; the skin assumes a mottled or waxen aspect, and general emaciation ensues, or effusions take place into the cavity of the abdomen, and the patient falls a victim to general dropsy.

Such are the more prominent of the local symptoms which attend chronic gastro-duodenitis in its several forms and grades. It assumes, however, such a multiplicity of shades, and is attended with so many anomalies in its course, that it is utterly impossible to enumerate all the phenomena which attend it. The characters which have been detailed, will, in general, suffice for the purposes of a correct diagnosis, and to direct attention to the part of the organs which is the seat of the principal mischief. But to enable us to judge still more accurately of the disease, in reference to all its relations and consequences, it will

be necessary to examine those sympathetic disturbances, which are occasioned by the extension of its influence to the other organs. This is an important part of the investigation; for it often happens, that the sympathetic phenomena are so much more prominent than the primary affection, they are often mistaken for the disease itself, and the whole treatment is directed to them, while the original affection is allowed to proceed without interruption.

The state of the tongue in chronic gastro-enteritis, has been partially adverted to already. Its aspect is exceedingly variable. In most cases it is slightly furred, and in duodenitis, it is frequently much loaded, and tinged with a dirty yellowish hue. Sometimes, however, it is moist, expanded, and nearly clean,—merely presenting some enlargement and elevation of the follicles about its base, or having an infinity of minute red points or papillæ, disseminated over its surface. By Broussais, it has been remarked, that the tongue is red, contracted at the point, and covered with large red follicles at the base—and that there is also increased redness of the gums, lips and eyes.* This is certainly true of a large proportion of cases, when the disease assumes a character of considerable intensity, and it has been remarked above, that the whole lining of the mouth and fauces, is sometimes intensely red, or affected even with a diptheretic inflammation. There are many cases, however, in which no such redness of the mouth or tongue exists, and in which that organ cannot be regarded as an index of the state of the stomach. Indeed, however valuable it may be, as a means of assisting us in forming a diagnosis, the indications which it furnishes, especially in chronic diseases, are often exceedingly fallacious, and should not be confided in, except when corroborated by other symptoms. We have also adverted to the sympathetic inflammation of the amygdalæ, and the mucous membrane of the pharynx and œsophagus. Broussais remarks, that in some cases, when the inflammation affects the lesser curvature of the stomach, an acute pain is felt in the amygdalæ, as though a lancet had been plunged into them. It is common for the whole secretory function of the mouth to experience important modifications. Sometimes the mouth and fauces are dry and parched:—at other times a copious mucous secretion is poured

* Cours de Pathologie et de Therapeutique, generales, tome ii. p. 64.

out; and occasionally we have seen the salivary glands so much excited, that the individual seemed to be affected with a profuse salivation.

These sympathetic affections of the mouth and fauces present an interesting pathological feature. They mark the great tendency which there is, when any part of the central section of the alimentary canal is the seat of disease, for the effects of the malady to shew themselves at the extremity of the tube. The same thing is observed in many other forms of disease of the stomach and bowels. Sometimes similar sympathetic inflammations are developed about the anus, in cases of enteritis; and irritations of the bladder and urethra are almost constantly attended with pain or irritation at the end of the penis.

The state of the bowels in chronic gastro-duodenitis is exceedingly variable. They are very apt to become involved in the disease; and in such cases, the pain, instead of being confined to the epigastric and hypochondriac regions, is found extending over different parts of the abdomen, often changing its position, and generally rendered more troublesome by the bowels being distended with flatus, which is generated in great abundance under such circumstances. In some of these cases, however, the pain instead of being increased by pressure, is greatly relieved by it; and it is not uncommon for individuals to experience a dull, heavy, dragging pain about the lower bowels, which is much relieved by kneading or shampooing the abdomen with the hand. In such cases, the muscular coat of the intestine seems to be divested in part of its contractility, and is incapable of acting with sufficient energy to expel the gas accumulated within it, which occasions a painful degree of distention. Pressure, therefore, affords relief by shifting the position of the gas, and thus removing the inordinate distention to which the gut is submitted. There are cases, nevertheless, when the mucous membrane of the intestine is actually inflamed, in which this procedure will increase the pain and uneasiness.

A more important trait connected with the sympathetic influence exercised upon the bowels, is the obstinate constipation which exists in almost every stage of the disease. It is true, they sometimes present an opposite condition; but this is generally of temporary duration, and seems to be brought about rather by the irritation occasioned by the accumulation and retention of the fæces, than any other cause. The dependence of

constipation upon inflammation of the stomach was first fully pointed out by Broussais. It is a character of the disease which deserves to be particularly noted, because it is a symptom that has led to more mischief in practice than any one with which gastritis, whether acute or chronic, is attended. The sluggishness of the bowels was supposed to denote a habitual torpor which was referred to debility, and as purgatives suggested themselves as the most rational means of exciting the action of the intestines, they were freely administered. This practice is still too much pursued by many, who direct their treatment more for symptoms, than to meet any well determined pathological state of the organ; and the temporary relief such remedies afford is well calculated to perpetuate the error. Mild aperients, as blue pills, rhubarb, &c, are usually employed at first; but as the disease advances and becomes more intense, these remedies lose their effect; and as each successive dose frequently tends to increase the supposed torpor, by concentrating irritation on the inflamed organ, and transferring it from the bowel, more active agents become necessary,—and the patient is compelled to run a gauntlet, by passing successively through the ordeal of aloes, colocynth, scammony, and gamboge, until he finally brings up with croton oil, which in the end proves too feeble to rouse the tortured energies of his intestines. The practice is founded in error, and the result must be mischievous. The bowels are torpid, but the stomach is a focus of irritation, which concentrates upon itself the susceptibilities of the lower portion of the tube, and thus renders it incapable of responding to its accustomed stimulus, and executing its functions. Cathartics, by exasperating the irritation of the stomach, only increase the inactive state of the bowels, and although they afford some relief at the time, it is only obtained at the expense of the suffering organ.

The glandular apparatus appended to the abdominal portion of the digestive organs, experiences serious disturbance in this affection. The liver, especially, as has been remarked already, has its functions much deranged, and often undergoes important changes of structure. The manner in which it becomes affected in chronic duodenitis, has been explained above. This has often led to the erroneous conclusion, that the affection of the liver is the principal disease, and the condition of the stomach and duodenum, which is the fons et origo of the whole mischief, is altogether

neglected. Bichat pointed out the very intimate sympathies which exist between the mucous membrane of the duodenum and the liver, and explained the manner in which they are transmitted along the excretory ducts to the entire organ. To Broussais, however, we are indebted for demonstrating the true pathological value of this connexion. He has satisfactorily shown, that a very large proportion of the diseases of the liver have their origin in irritation commencing in the duodenum, which is transmitted from thence to the gland, along its common duct. The fact has been furthermore confirmed by Andral,* and other pathologists, and it has been proved by Ribes, that besides this channel for the transmission of irritation from the mucous membrane to the liver, it is often conveyed by those radicles of the portal vein, which take their origin from the alimentary canal. We can thus easily comprehend how chronic gastro-duodenitis may, even at the onset, be attended with suspension, increase or vitiation of the biliary secretion:—how it may occasion temporary or permanent congestion of its vessels,—produce important changes in its nutrition, and in the end, either lead to disorganization of its substance, or give rise to various transformations or degenerations in the midst of its elements. The same connexion explains the sallow and jaundiced condition of the skin; the dark or yellow suffusion of the eye; the mottled aspect of the countenance, and the other evidences of hepatic disease which are so often associated with chronic gastro-duodenitis. These pathological principles are of great value in reference to therapeutics. While the mucous membrane of the duodenum is in a perpetual state of irritation, the common practice of constantly exciting it by means of mercurials and resinous cathartics, with the object of eliciting the secretion of the liver, must often prove mischievous. Those who adopt this procedure, do not seem to reflect that the augmented secretion of bile which is produced by such remedies, is not excited by any specific influence of the medicine upon the gland, but by a transmission of the exalted irritation excited by it in the duodenum, along the course of the gall ducts, to the intimate structure of the liver. While, therefore, the latter may experience temporary relief after the operation of the remedy, the former is generally exas-

* Clinique Medicale, tome iv.

perated:—at least after the slight revulsive effect created by it upon the lower bowels, has had time to subside.

How far the pancreas may become diseased in chronic duodenitis, through its connexion with the mucous membrane of the intestine by its excretory duct, cannot be well determined in the present state of our knowledge, in consequence of the limited information we possess in relation to those symptoms which denote any disease of its substance. That it does become thus affected, we have reason to infer from analogy, since the liver, which has a similar connexion by its excretory duct with the duodenum, very often suffers from its sympathy with that intestine. It may be remarked, in reference to this subject, that some cases have been reported by Dr. Bright, which render it probable, that a discharge of fatty matter by stool, becoming concrete when cold like tallow, is an indication of the complication of pancreatic disease with an affection of the duodenum. In three fatal cases observed by him, in which this symptom existed, the head of the pancreas was affected with malignant disease, and the intestines, particularly the duodenum, were in a state of ulceration.* A case of the same kind associated with obstinate jaundice, has been reported by Mr. Lloyd, in which disease of the head of the pancreas, and the duodenum, was found after death. Mr. Eastcott likwise observed a case, in which, with defective biliary secretion, there was an evacuation of liquid fat by stool. The pancreas was found hardened and changed in its structure, and its duct very extensively obstructed by calculous deposites.† How far these oily dejections may depend upon disease of the pancreas, we cannot decide with any certainty; but that this organ may become affected sympathetically in diseases of the duodenum, there can be but little doubt.

The sympathetic relations of the spleen with the stomach and duodenum are very intimate, and whenever the mucous membrane of these organs suffer from disease, either acute or chronic, the spleen is apt to become more or less involved. In chronic gastritis affecting the greater extremity of the stomach especially, the spleen is very apt to become enlarged, and un-

* Lectures on the Functions of the Abdomen, &c. London Medical Gazette, vol. ii, p. 349, 1838.

† Ibid.

dergo various alterations in its texture. This can be partly explained by the close connexion which is maintained between the two organs by the vasa brevia, which would naturally render the one of them prone to suffer from any cause giving rise to a material disturbance of the circulation of the other. Hence we may account in part, for the frequency with which the diseases of the spleen are associated with chronic gastritis, and the liability there is, under such circumstances, on the part of the affection, to give rise to general dropsy, by exciting serious organic diseases of the spleen and liver. It is, perhaps, partly for the same reason, that in many cases of chronic gastritis, frequent hemorrhage take place from the stomach and bowels, constituting the diseases denominated hematemesis and malæna.

After the liver, there is perhaps, no secreting organ which suffers more from its sympathies with the stomach and intestines, than the kidnies. In chronic gastritis, therefore, the secretion of urine almost invariably experiences more or less derangement. This fluid is not only liable to be greatly diminished or increased in quantity, but likewise to become considerably modified in quality. In dyspeptic individuals, thus called, the urine is sometimes remarkably scanty and high colored, and deposites a copious sediment on standing. In some instances, it is even turbid and muddy when first voided, and exhales a strong ammoniacal smell; or after standing some time, it may become covered with a manifest pellicle, and acquire a highly offensive odor. Occasionally it is preternaturally copious and limpid, forming what is denominated diabetes insipidus; or it may become strongly saturated with saccharine matter, giving rise to diabetes mellitus. It is sometimes acid—sometimes alkaline, and deposites sediments, the properties of which vary according as the one or the other of those conditions predominate; and in many instances its composition becomes so far modified, as to lead to the formation of calculus in the kidney or bladder. Lithiasis, indeed, as well as the diabetic and other pathological states of the urine, in a large majority of instances, is more or less intimately associated with, or dependent on, chronic affections of the stomach and the other organs of digestion.

The circulation is variously modified by chronic gastritis. It is seldom accelerated to such a degree as to produce much heat of the surface; there are, nevertheless, cases in which there is considerable frequency of the pulse, and more or less febrile

heat. This is generally confined to those cases in which the inflammation presents considerable intensity, and even then, the febrile symptoms are confined for the most part to the evening and night, when they occur in form of a slight exacerbation, attended with an increase of all the sufferings of the individual, more or less thirst and dryness of the mouth, and general restlessness and uneasiness.

A more frequent species of disturbance is that which is of a purely nervous character. It has been already remarked, that the heart is often affected with violent and distressing palpitations, and that individuals affected with chronic gastro-duodenitis, are frequently harrassed with strong and irregular pulsations of the aorta in the epigastric and umbilical regions. The same irregular actions are often experienced throughout the whole arterial system,—the heart palpitating violently, and the large arterial trunks pulsating with a degree of force and irregularity which alarm the patient. The oppression and uneasiness occasioned by the action of the heart, often awakens an apprehension in the mind of the individual, of the existence of serious organic disease, and the extreme facility with which these palpitations are excited by slight exertion, and by every trivial mental emotion, often so far absorbs the attention, that the condition of the stomach is apt to be overlooked. They often take place likewise during sleep, and the individual experiences all the symptoms of night-mare, or he wakes up in a state of anxiety and alarm, with his energies completely overwhelmed by momentary prostration.

These sympathetic disturbances of the heart and arteries, owe their origin to an exalted susceptibility of the ganglionic nerves by which their actions are controled. This morbid susceptibility may be developed, either by the direct influence of the local gastric affection upon these nerves—the stomach and intestines being supplied by the same system, or by a morbid influence reflected upon them from the cerebro-spinal centre. It is also probable, that the pneumogastric nerve may have some agency in producing them; for it has filaments distributed to the heart as well as to the stomach, and it can be easily conceived, how an irritation constantly exercising its influence upon the portion which supplies the stomach, may give rise to a sympathetic disturbance of the cardiac filaments, and occasion violent palpitations and irregular contractions of the heart.

Although these anomalous actions of the heart are at first merely a consequence of its morbid sympathies with the stomach, by frequent repetitions or long continuance, they may occasion serious consequences. The walls of the heart, subjected to the perpetual influence of the disturbance emanating from this source, are apt, in the course of time, to become affected with hypertrophy and other organic diseases. Hence it is not unusual to find the victims of protracted gastritis, gradually becoming subjected to the additional calamity and suffering of an incurable disease of the heart, and in the end, falling a sacrifice to the common consequences of that disease—a dropsy of the chest, or a fatal apoplexy arising from a preternatural distribution of blood to the brain. Sometimes, indeed, the simple sympathetic disturbance of the vascular system arising from chronic gastritis itself, without the intervention of any cardiac disease, is sufficient to occasion apoplexy and death. This disturbance of the vascular system is, moreover, very apt to occasion irregular determinations of blood to other organs, and it is not uncommon to find the dyspeptic gradually acquiring a succession of new diseases, and literally falling a victim in the end, to "a complication of maladies."

The bronchial and pulmonary apparatus, though not so often affected as the heart, from the sympathetic influence of chronic gastritis, frequently suffers serious disturbance from that cause. The pneumogastric nerve which supplies both organs, seems to be the conductor, under such circumstances, of the morbid influence. As it controls the action of the muscular fibres of the bronchia, as well as those of the stomach, the irritation affecting the latter organ can be readily transmitted to the bronchial fibres, and derange their action. Hence, asthma frequently proceeds from chronic gastritis, and we often find a paroxysm of that disease excited by any cause tending to exasperate the irritation of the stomach. For the same reason, dyspeptics are frequently affected with a dry hecking cough, which has been, even by the vulgar, referred to the stomach; and sometimes, when predisposition to pulmonary disease exists, such individuals become affected with organic disease of the lungs, attended with expectoration and emaciation, as in the disease which has been described by Wilson Philip, under the appellation of *dyspeptic phthisis*.

It has been remarked that the skin is generally dry and h

When the disease has a character of much intensity, cutaneous exhalation seems to be nearly suspended,—the whole surface of the skin becoming dry, rough and hard; and losing all its characteristic softness. The whole tide of the circulation is directed to the gastro-intestinal mucous membrane, and when the disease is violent, and has continued for some time, the skin sometimes becomes as dry as parchment, loses its sensibility; and assumes a mottled, scurfy or scaly condition. As regards temperature, it presents several modifications. It is seldom increased, except where the inflammation verges upon the acute degree, and in nearly all cases, coldness of the feet is a constant concomitant. The condition of the skin influences the hair. It becomes dry and harsh, and sometimes acquires a degree of supersensitiveness which renders it sore or painful to the touch. The individual is likewise very apt to become affected with alopecia—the hair falling out, and giving rise to partial or complete baldness.

But of all the sympathetic manifestations developed by chronic gastritis, those of the nervous system are the most multifarious and anomalous in their character. It is these which impress upon the disease its protean character, and cause it in its various shades and complications, to simulate almost every human malady.

Amongst the evidences of disease which is observed in this quarter, pain is the most general. It presents nothing regular, however, either as regards its character or situation. The ganglionic system of nerves, which in its healthy state possesses but little sensibility, sometimes has its susceptibilities so much elevated in this disease, as to be even a source of much pain and distress. That which is experienced in the stomach has been already adverted to; but independently of this, a pain of great intensity is experienced directly behind that organ, in the situation of the semilunar ganglion and solar plexus. Pressure upon this point in such cases, causes a sharp piercing pain to shoot backwards towards the spine,—to extend upwards into the thorax, and from the point upon which the pressure is made, to radiate in various directions through the abdomen; and sometimes it even follows the nerves of the head and extremities to their sentient extremities, giving rise to a sharp pricking pain about the scalp, face, neck and trunk; and in various parts of the upper and lower extremities. The same diffusion of pain from this common

centre, is in a majority of cases experienced at times, independently of pressure. It extends from the ganglionic nerves to the spinal marrow, through the connecting filaments by which the two systems are associated, and radiating from the spinal centre along its numerous sensitive filaments, it manifests itself whenever the susceptibilities are most elevated. The back, the walls of the abdomen and thorax,—the scalp, face, eyes, throat, the extremities, &c. may all become alternately or simultaneously the seat of pain, which is either dull or obtuse, or acute or lancinating—continuous or intermitting—fixed in one or more parts, or transferring itself with great rapidity from the one to the other. Of all these parts, however, the head, scalp, face, and eyes, are the parts which suffer most—the individual suffering few intervals of repose, either from the distress of his stomach and bowels, or the indescribable torments of nervous pains about the head and face, presenting the characters of neuralgia, hemicrania, or what the French have denominated migraine;—excruciating pain of the eyes, intolerance of light and sound,—and frequently dimness of vision, and vivid flashes of light or sparks flying before the eyes. The susceptibility of the whole nervous system seems to be morbidly exalted, and exquisite pain and suffering are occasioned by every trivial atmospheric change, or even by the common impressions to which it is habitually exposed. Nor is this all: when the disease thus involves the nervous centres, the motor as well as the sensitive filaments of the nerves become affected, and with the pain, there are frequently associated irregular muscular twitchings or cramps, which harrass the patient by night and day, and together with the pain, submit him to perpetual torments. The mind finally worn out by protracted suffering, becomes "sicklied o'er" with deep despondency, multiplies the ills which afflict the corporeal frame, and the individual falls a prey to the horrors of hypochondriasis,—or the erethism of the brain and spinal marrow, and of the whole nervous system, becomes so much exalted, that under the influence of some unaccustomed stimulus, the patient is affected with apoplexy, or is attacked with horrid convulsions.

Such is an outline of the more prominent features of chronic gastritis. However tedious the detail of symptoms which has been given, it by no means embraces all those which sometimes accompany the malady; for its sympathetic relations are so ex-

tensive that there is scarcely an acute or chronic disease which it does not at times simulate. By some it may be considered that we have been unnecessarily minute in the exposition of symptoms. We do not write, however, for the veteran pathologist and the experienced practitioner, but for the instruction of those whose opportunities have been more limited, and whose observation is not extensive. To such it is important to pourtray all the varying features of the disease, since it is only by their becoming familiar with them, that they can avoid those formidable errors of diagnosis and practice which so often lead to irreparable mischief.

It is needless we should say any thing of the causes, duration and termination of the disease. Information upon these points is not wanting, and any details upon them would be superfluous. Nor have we room in the present paper, to describe the anatomical characters of chronic gastro-duodenitis. We may, however, enumerate them on a subsequent occasion.

As it may be inferred from the drift of our observations, that we are disposed to refer all cases of dyspepsia to chronic gastritis, we think it proper to remark, that although we are satisfied the disease, if disease it may be called, is in a very large majority of cases referrible to this cause, there are cases in which no inflammation is present, but where the impaired digestion depends upon a neuropathic state of the stomach, either consisting in enfeebled innervation of the organ, or a morbidly exalted state of its nervous susceptibility, giving rise to much pain and suffering without being associated with inflammation, or any evidences of hyperæmia of the mucous membrane. Such cases have been described under the appellation of gastralgia, gastrodynia, epigastralgia, gastro-enteralgia, &c. &c. The diagnosis between these affections and chronic gastritis is exceedingly difficult and often impossible. These neuropathic conditions of the stomach, sometimes present many of the characters of acute gastritis also, and under such circumstances the same difficulties of diagnosis exist.

Upon this point, we shall offer the following tabular view of the symptoms proper to these two diseases, drawn up by M. Jolly, not that we think it altogether satisfactory, but because it exhibits in contrast, the most prominent features of the two affections.

"Gastro-Enteralgia.	*Gastro-Enteritis.*
Pain, vivid, acute, and lacerating.	Pain dull and obtuse.
—— Intermittent.	—— continuous.
—— diminished by pressure.	—— increased by pressure.
—— less vivid after a repast.	—— augmented after eating.
—— taking place generally in the morning.	—— mostly exasperated at evening.
Tongue sometimes discolored.	Tongue, mostly red.
—— expanded.	—— contracted.
—— clean.	—— furred.
Appetite frequently exagerated.	Appetite often nul.
—— —— depraved.	—— never depraved.
Desire of high seasoned aliments and alcoholic drinks.	Aversion for food and alcoholic drinks.
Taste metallic.	Taste bitter.
—— acid.	—— insipid.
Yawning frequent.	Yawning absent.
Vomiting mucous.	Vomiting of the aliment.
Alternation of heat and cold in the abdomen.	Continuous heat of the abdomen.
Thirst ordinary.	Thirst increased.
Desire of drinks—sometimes warm, sometimes cold.	Constant desire of cold drinks.
Constipation frequent.	Diarrhœa common.
Dejections natural.	Dejections bilious, mucous or bloody.
—— inodorous.	—— feted.
Increased pulsations in the epigastrium.	Pulsations of the epigastrium natural.
—— intermittent.	—— continuous.
—— not isochronous with the heart.	—— isochronous with those of the heart.
Fever generally absent.	Fever common.
—— intermittent.	—— continued.
Accession in the morning.	Accession in the evening.
Urine limpid.	Urine high colored.
—— abundant.	—— scanty.
Heat of the skin natural.	Heat of the skin increased.
Emaciation slight and gradual.	Emaciation very great and rapid.
Physiognomy but little altered.	Face discolored,—countenance pinched and decomposed.
Temperament irascible, timid and morose.	Affective faculties little disturbed.
Diagnosis sometimes obscure.	Diagnosis ordinarily manifest.
Prognosis less dangerous.	Prognosis more dangerous.
Anatomical characters equivocal or absent.	Anatomical characters constant, though variable.

[*Jolly, Dict. de Med. et de Chir. Prat. Art. Gastralgia.*

It will be remarked, that the symptoms laid down in this table refer mainly to acute gastritis. The items contained in it may serve, however, as a standard of comparison, and thus assist in forming a diagnosis between gastralgia and chronic gastritis.

(To be continued.)

Art. IV. *Thoughts on the Muscularity of the Human Uterus.* By John B. McDowell, M.D. of Baltimore.

In the last number of the North American Archives of Medical and Surgical Science, we read a paper on the much vexed question,—the muscularity of the human uterus; in which paper the author boldly throws the glove in behalf of the opinion that the human uterus is not muscular. We differ with him toto cœlo, both as to his principia and his deductions. We nevertheless do not deem him *heretical*, nor will we wantonly "assail him in unmeasured terms;" but endeavor, in a brief train of sober argumentation, to demonstrate the truth of the doctrine which teaches that the muscularity of the human uterus is not an idle fallacy,—an utopian reverie.

First, of muscular agency in general. Wherever we find the muscular office going on, and wherever we can unequivocally discern the evolvement of functions which are manifestly identical with the well established and generally admitted pursuivants of muscular effort, ought we to deny the existence there of muscular fibre? Denial is easy, but proof is difficult.

Muscularity may truly be denominated a moving power, inherent in the texture which we call muscle; its essential properties are as occult as are the intrinsic properties of the principle of life itself. If we affirm the existence of muscularity in a white tissue, we are promptly told, that muscle is uniformly red; in the inferior animals, however, we have well developed and highly capable muscular fibres, whose texture is blanched. Reasoning from analogy then, we may very legitimately infer, when we meet with muscular function in a white tissue, in the human subject, that this tissue possesses the essential attributes of muscle; that its moving fibres are muscular, its white aspect to the contrary notwithstanding.

To assert that a tissue is not muscular, merely on account of its bloodless hue, is hardly a fair mode of inferential reasoning. As well might we declare that the negro is of a race different from our own, because his skin is not white. There are in the human body modifications of like functions, why not then modifications of like structures destined to execute functions that are, as to their nature, one and the same? That there are white *muscles* in the inferior animals we know full well, and their

existence is strong presumptive proof that muscularity is one of the endowments of the human uterus, but presumptive proof is not final. Well developed fibres have been conspicuously demonstrated in the human uterus, by Sir Charles Bell, and other anatomists; and when we associate this fact with another very important fact, namely, that the uterus in many, nay in most, inferior animals is undeniably muscular, the evidence is cumulative, and carries a resistless force with it. Although we call in to our aid analogical, presumptive, inferential, and collateral reasoning, still we do not consider these modes of reasoning as constituting an impenetrable shield of defence, nor would we too confidently poise a lance behind such a buckler; these modes of reasoning, however, are available and admirable adjuvants to that reasoning which is based upon facts, which has positive data for its substructure.

Let us look a little into the facts which appertain to the matter now under our consideration. We affirm the muscularity of the human uterus. Why? Because dissection, (not that cunning trick of the knife which can fabricate parts that do not exist,) clearly reveals to our eye accurately defined fibres. Are these merely apparent fibres? No, they are real muscular fibres, because the functions which are conjoined with them proclaim them such, and show conclusively that action, and action with reference to a definite end is one of their essential endowments. These fibres, from their size and action, are found to have inherent in them, a capability fully adequate, in our estimation, to the explanation of the efforts which the uterine organ is empowered to perform.

If we look at the phenomena of parturition, apart from any intrinsic anatomical peculiarities of the uterine system, we might reason, a priori, that nothing but muscular fibres could be equal to the achievement of labor; but, as we have already said, we must not rely too positively upon reasoning by inference. Happily we are not constrained to rely wholly upon such reasoning, in this matter; we can appeal to anatomy, and our not unavailing appeal strengthens inference, and enhances presumptive into positive testimony. As dissection, more than any thing else, may be successfully appealed to in this matter, we will make an observation, *en passant*, upon the sort of evidence which it furnishes.

A man, rich in talent, eminently capacitated, by long expe-

rience and by unfading zeal in the cultivation of anatomy, schooled too in the discriminating characteristics of the various tisssues of the human organism, studies the composition of the human uterus, he finds with exceeding facility fibres, and from their collocation, and from the obvious functions which it is their province to perform there, he is led to deem them muscular; he connects the anatomical links with the phenomena which are closely allied to those, and he naturally and necessarily makes out a chain of reasoning, by which he demonstrates the existence, in the uterus, of fibres essentially and absolutely muscular. Need our charity be taxed so far as to compel us "to admit that he *thought* he saw what he described." A second individual takes up the knife, a less qualified anatomist, and hunts for muscular fibres in the uterus, and avers that he cannot find any such. What then? Why we must, of course, be lenient, we must not be wanting in charity towards him, we must do him the justice "to admit that he *thought*" he did not see muscular fibres in the uterus. But does the matter terminate here? is the point at issue between the parties final? by no means, and for the simple reason that disparity of testimony is in a direct ratio with disparity of capacity in the investigators.

While then we are free to confess ourselves equally charitable to both inquirers, we incontinently lean to the conclusions of the wiser head, and the more practical and adroit hand.

As to the dictum, "the fibres in their thickness correspond to their degree of contraction," we do not attach so great a share of importance to this, because we do not necessarily reason in this way about other muscular fibres; we do not hold the opinion to be incontrovertible, that the force and contracting power of any muscle is invariably in exact proportion with its volume, we believe we have seen instances, and not a few, to the contrary. This does not affect sensibly the main question, it is enough for us to inquire as to the kind of function; there may be, and undoubtedly are, exceptions as to the degree.

It is inferred by some that the uterine fibres cannot be muscular, because they are so long a time without acting. As well might we reason that fibres of the heart are not muscular, because they are constantly in action. Is it not as conceivable, that there should be a muscular organ in the body that contracts rarely, as that there should be one that contracts permanently, during life?

It has been suggested by those who advocate the doctrine of uterine muscularity, that the melancholy disruptions of the uterus which sometimes occur, are owing to an inordinate exercise of its muscular endowments. We feel abundantly assured that sudden and cogent excitation of muscles is fruitful of accident and material injury. For example, a man falls suddenly and most unexpectedly, and not from any considerable height, and his thigh is perhaps dislocated or fractured; neither the height or the violence of the fall can adequately interpret the injury, what then has produced the mischief? We cannot in any way explain it so well as by saying that the injury is the fruit of the sudden and powerful requisition into which the muscles were brought, in obedience to the instinct of self-preservation; the strenuous conservative efforts brought about the accident. There is, says Bell, "the will of the system, and the will of the mind," or as we might less elegantly and not so metaphysically say, the animal and the organic instinct. If inordinate instinctive effort may be exacted of one set of muscular fibres, why not of another? in a word, if a potent excitation of the muscular fibres of the leg can fracture or luxate the limb, why may not a superabundance of muscular tone in the uterus rupture that organ? Reasoning from the domonstrations of Sir Charles Bell, as well as from obvious physiological data, we feel ourselves amply warranted in coming to the conclusion, that uterine disruptions are originated and consummated by a super-excitation of the uterine muscular tissue.

We do not at all vindicate the doctrine of uterine muscularity in view of its antiquity; we take the doctrine upon its own merits, exclusive of extrinsic circumstances. We have a few more reflections to make on this subject, but we will reserve them for a future paper.

Baltimore, December 6th, 1834.

SELECTED PAPERS.

On Hydrocele of the Neck, with Cases and Observations. By James O'Beirne, M.D.

It is now nearly twenty years since Professor Maunoir, of Geneva, described a disease to which he gave the name of hydrocele of the neck, and which, although essentially different in its nature, and requiring a very different mode of treatment, bears such a resemblance to bronchocele or goitre, that it has constantly been confounded with the latter disease, and treated accordingly. The manuscript memoir in which he described this disease, was read at the Royal Institute of France in 1815, and afterwards transferred to the Academy of Natural Sciences; by which body the late celebrated Baron Percy was selected to report upon its merits. It was not, however, until April, 1817, that the Baron presented his report, which proved highly unfavorable to Professor Maunoir's opinions and practice. In 1825, the latter published, for the first time, his memoir, with the whole of the unfavorable report made thereon, and a most able and satisfactory defence of his peculiar views on the subject.* But it would appear that, as too often happens, the authority of a great name, aided by bold and specious objections, proved more powerful than either the strongest facts or arguments; for, after considerable research, I have failed in finding even the slightest notice of this memoir in any subsequent French or English work. So little, indeed, does it appear to be known in both countries, that Delpech† and Lawrence,‡ who, between them, have related three cases, which appear to have been examples of the disease, not only make no allusion to it, but, by employing incision in the treatment of these cases, would seem to show that they were unacquainted with its existence; for it is only natural to presume, that, if they had known the equally certain, and less dangerous and disfiguring mode of treatment by seton, so successfully adopted by Maunoir, they would have given it the preference.

About four years ago, the three memoirs to which I have already referred came accidentally into my possession, and the singularity of its

* Mémoires sur les Amputations, l'Hydrocele du Cou, et l'Organisation de l'Iris. Par J. P. Maunoir, ainé, Prof. D. C. Geneve et Paris, 1825.

† Chirurgie Clinique de Montpellier, t. ii. p. 79—87.

‡ London Medico-Chirurgical Transac. vol. xvii. p. 44 et seq.

title induced me to read that "Sur, l'Hydrocele du Cou." Since that time, accident again favored me by enabling me to observe three striking examples of the disease, all of which displayed the utter fallacy of Baron Percy's objections. According as they presented themselves, accurate notes and drawings of these cases were taken with a view of publishing them, at some future day, and giving such a general aceount both of the memoir in question, and the whole subject, as might prove acceptable to the profession. That time is now come, and I trust that I shall be enabled to carry my intention into effect.

According to Professor Maunoir, the disease has been often observed without its true nature being known; as may be seen in treatises on tumors, and from one example detailed by Heister, and three cases quoted by Ploquet. He declares also, that all the cases of it which he has seen, had been confounded with and treated as goitre, by numerous members of the profession. The disease consists in the formation of serous cysts, commencing very small at some point of the side of the neck, and gradually increasing, for several years, to such a size as to occupy the whole of the front and of one side of the neck, and seriously impede respiration, deglutition and speech.

The tumor so formed conveys to the touch a distinct sense of fluctuation, and contains a fluid of either a limpid, a reddish, or a dark coffee colour, and coagulable by heat. In the great majority of instances, it exists independently of any enlargement of the thyroid gland; and, in his fourth case, it was situated behind the angle of the lower jaw, and, of course, quite removed from this gland. But he has, in two instances, observed the contrary; and the second of his cases, in which the gland, enlarged and indurated, formed one eighth of the whole tumor, is an example of this complication.

With respect to the treatment of the disease, the learned Professor's opinions and practice are these:—"Although," he says, "there may be great affinity between encysted tumors in the neck and hydrocele of the tunica vaginalis, yet it appears to me that in hydrocele of the neck, the cyst is more dense, and more difficult to be excited to adhesive inflammation. Accordingly, its treatment should not be directed by analogy, and it is not proper to have recourse to the cure by injection, although it seems, at a first view, to be the best. I wished to try it, and have been obliged to renounce it as a bad plan, and one not free from danger. An injection which is not very stimulating, will effect nothing, or almost nothing, on a very thick, and, in general, an old cyst. If a very active injection be employed, it will cause great pain, and give rise to very alarming spasmodic symptoms. Moreover, I have to observe, that sometimes enlargement of the thyroid gland complicates the treatment. In that case, the object is not merely to produce adhesion of the walls of the sac; it will be necessary to employ a mode of cure by which we

may succeed at the same time in resolving this gland, when it projects into the tumor, as I have seen in two patients." As to laying open the tumor by incisions, as practised by Heister, or extipation of the whole or of only a part of the cyst, he condemns these operations as being serious, difficult, and calculated to prolong a cure, by producing a large wound, and one of a kind very slow in cicatrizing. In short, the treatment which he has been led to adopt and recommend consists in puncturing the tumor, and, after evacuating its contents, passing a seton through it, in the direction of its longest diameter. By this plan, a fresh accumulation of fluid is prevented, the adhesion of the walls of the cyst is insured, and the thyroid gland, when it happens to be enlarged, is gradually reduced to its natural size.

He relates four cases, all of which are so generally interesting, that I shall here give them in a comparatively abridged form.

Case I.—A washer-woman named Martin, aged 49, still menstruating, with a spherical tumor on the front and left side of the neck, as large as an infant's head, presented the first example of the disease that the Professor had seen, read, or heard of. Originally this tumor had been very small, but increased in quite an insensible manner. It did not force her head to incline to the left, but to the right side, and formed a sort of cushion for her head to rest upon. She had taken burnt sponge, and many other boasted remedies for goitre, but without any benefit. Difficulty of breathing and swallowing came on, and increased in proportion to the growth of the tumor. One day, while washing at the river side, she threw up a very great quantity of blood, fainted, and was supposed for some moments to be dead. The hæmoptysis and oppression continuing, and the swelling being felt to contain a fluid, a trochar was passed into the most prominent and fluctuating part of the tumor, and gave exit to a pint and a half of a deep brown liquid, which coagulated by the application of heat. Complete relief ensued. On the following day, the swelling had returned to its former size; but fluctuation was less manifest, for infiltration had taken place between the tumor and the skin.

At the end of fifteen days this infiltration had disappeared, and the cyst was punctured by a trochar, and, after being emptied, filled with warm red wine and a small portion of alcohol. This injection, although retained but for a few moments, caused great pain and suffering. Swelling, redness, trismus, and increasing pain, on the following day: leeches, poultices, aperient medicines, and opium, ordered. An abscess, external to the cyst, opened and treated in the ordinary way until it healed. A third puncture made into the upper part of the cyst by a sharp-pointed bistoury, and giving exit to as considerable a quantity of fluid as at the second. A button-pointed probe then introduced into the opening, and *passed until* it became prominent at the most inferior part of the tumor;

the point of the probe then cut upon, and the instrument withdrawn, leaving in its place a single thread. This thread frequently renewed; no accumulation of fluid. A seton of ravelled linen passed, and caused abundant suppuration. This seton continued for six weeks, and then removed by the patient on account of interfering with her ordinary occupations. Both openings fistulous for some months; the upper first closed; and in the year 1813, when she was 63 years of age, her neck was very slender, and her health robust.

Case II.—Monsieur C. of Vevay, aged 40, had for many years a tumor situated on the front and right side of the neck. This tumor extended from the chin and lower jaw to the sternum and clavicle; and in the greater part of its extent, there was a manifest sense of fluctuation, but points corresponding to the thyroid gland appeared to be hard and prominent. The swelling increased daily, became fatiguing from its weight, and ultimately caused difficulty of respiration and speech, and occasionally attacks in which he seemed to be on the point of expiring. A puncture made into the upper and left portion of the tumor, and a pint of limpid, amber-colored, and perfectly inodorous fluid evacuated. This evacuation reduced the tumor to one-eighth of its size, the remaining portion being formed by the thyroid gland in an enlarged and indurated state. A blunt probe now passed into the opening in the sac, and carried down to the inferior and anterior portions of the tumor; the point of the probe cut upon, and a single thread passed, in the usual way, as a seton. Great freedom of respiration, and in moving the head, instantly followed the complete evacuation of the tumor. Next day, a fresh accumulation of fluid, but much less in quantity, and of a fetid, sanious kind; some fever; stomach deranged. Hippo, followed by infusion of bark, and Spa and Seltzer waters employed, and restored the patient to his ordinary calm state. Pieces of linen, gradually increased in size, and smeared with simple digestive ointment, introduced as setons; injections of plain and hydrosulphurated water, and decoction of bark, with honey, thrown into the sac. Discharge less in quantity, and more purulent; the extent of the cavity greatly contracted; and the thyroid gland diminished in size. In a few months the patient's health was completely restored, and his neck became of its natural size.

Case III.—Mademoiselle T. D., aged 20, having for many years a large tumor on the front, and a little to the right side, of the neck, had been subjected to all the known modes of treating goitre. This tumor was of enormous size, and consisted in a great degree of fluid. The least movement brought on cough, and attacks of suffocation. Her parents and friends refused to permit a seton to be passed, but a puncture with a trochar was made in the most depending part, and a cupful of fluid, resembling infusion of coffee, was drawn off. The canula was then withdrawn, with a view of retaining the rest of the fluid, and enabling a second

puncture to be made and a seton to be passed. The tumor was very little diminished; the wound was then covered with adhesive plaister, and a roller applied with moderate firmness. After passing some hours in a very quiet state, she indulged too freely at dinner, and in the evening felt oppressed in her breathing, and the tumor became quite black. It was evident, in fact, that the contents of the sac had passed into the subcutaneous cellular membrane. She passed the night badly, and could scarcely swallow a few drops of an anodyne draught. In the morning, great difficulty of respiration, and total incapability of swallowing; the parts surrounding the tumor so swelled that the neck was raised to the level of the chin and lower jaw, with which it seemed to form one continued pillar. The whole of the upper part of the thorax was also infiltrated, and the alteration of the voice and dyspnœa were such as to lead to the belief that the effervesced fluid had penetrated into the internal cellular tissue of the trachea. In the course of the day, however, all these symptoms gradually diminished in severity, and the swelling was considerably reduced towards evening. She passed a good night, and on the following morning, deglutition and respiration were free. On the fourth day from the operation, the original tumor was diminished by one half; the infiltration and black color of the skin had disappeared, and the patient was in excellent health.

On the 30th of January, 1812, that is, after about six weeks had elapsed, the tumor was as large and as distressing as ever. A hydrocele trochar, with a flat elastic canula, was passed into its most depending part, and two pints of a dark brown fluid, coagulable by heat, were discharged. On emptying the tumor, the thyroid gland was found moderately enlarged. A blunt probe, armed with a single thread, introduced through the canula, made prominent at the upper part of the cyst, and there cut upon until it could be withdrawn, and the thread left as a seton. For some days, nervous symptoms appeared. The two little incisions contracted so much, that the thread could not be moved backwards and forwards but with great difficulty, and such as to create a suspicion of its being lodged in the tissues of the walls of the cyst, which it had cut in gliding, and of having thus left the cavity of the tumor. The silk thread withdrawn, at the instance of her parents, and in order that a fresh accumulation might permit a puncture to be made by a bistoury, (instead of a trochar, which had been found so ill-suited,) and enable a cotton wick to be passed as a seton. The tumor soon regained its former size, and the oppression returned. The necessity of this operation was repeatedly urged, but as often delayed from some frivolous pretext. The Professor was sent for in great haste, on the 16th of April, 1812, and found her with complete loss of sense and motion, slow and stertorious breathing, cold extremities, dilated pupils, and no pulse. No person being at hand to assist in the proposed operation, the tumor was punctured by a

hydrocele trochar, and a pint of dark brown fluid discharged. Immediately pulse, respiration, and in short, animation were restored; but permission to pass a seton could not be obtained. On the 7th of May, the size of the tumor required that it should be again punctured. On the 24th of June, she complained of violent pains in the head, great suffering and oppression. Another puncture made in the swelling, and a quantity of fluid, mixed with purulent matter, discharged. 25th, pains returned; astringent applications; increased enlargement of the neck; distress and oppression alarming. Six leeches applied, and the patient well purged with castor oil, without any relief. 27th, tumor punctured, and a lesser quantity of fluid, but more mixed with pus, discharged. 21st of July, symptoms severe, and increasing so much in violence, as to require another puncture, which was rendered difficult by the thickness which the infiltrated cellular membrane had acquired; and consequently, the increased depth at which the cyst was placed. A silk thread, and subsequently, a large seton inserted; abundant fetid suppuration; gradual contraction of the sac; an abscess formed and opened at the inferior and lateral part of the neck; a fistulous opening for some months at this point, and at length healed by an injection of a weak solution of sulphate of copper. Seton removed; tumor completely dispersed; and recovery perfect in all respects.

Case IV.—In the autumn of 1813, a young man, of the Pays de Vaud, of athletic stature and constitution, applied for advice respecting a tumor situated inferior to the left parotid, occupying the whole of the cavity beneath the angle of the lower jaw, which had existed for eight years. This tumor being felt of a scirrhous hardness, and its upper part alone appearing to be attached to the parotid gland, its extirpation was decided upon. 16th September, the tumor exposed by raising a triangular flap of the skin, the apex of which flap was below and the base above. The incisions made as closely as possible to the sac, in order to avoid a number of vessels on its surface. In doing so, the sac was unintentionally cut into, although thick, and several ounces of limpid fluid were evacuated. The tumor being thus found to be encysted, and not solid, the whole of the anterior of the cyst, amounting to two-thirds of its whole size, was removed by a circular stroke of the bistoury. What remained of the sac in the bottom of the wound, was easily separated from the deep parts to which it adhered; the flap was then laid down, united by suture, and a bandage applied. Union by the first intention took place, but, in consequence of the ligatures not coming away, the wound was not perfectly healed until the twentieth day.

After the experience of ten years, which elapsed between the writing and printing of his memoir, M. Maunoir enjoins the necessity of avoiding errors in diet, and exposure to cold and moisture; declares his increased confidence in the treatment by seton, and that the following is one of

those cases which have given him most trouble in effecting a cure. The case is very briefly related, and may be translated thus:

Case V.—"M. Tallon, inhabitant of a small village near Nyon, Canton de Vaud, and aged 57, had for many years a hydrocele of the neck, which, small at the commencement, had gradually acquired an enormous size. His chin rested upon the tumor, and the latter was supported by the sternum. The difficulty in breathing was distressing, and caused continual rattling in the throat. I operated upon this patient on the 22d of May, 1822. The tumor was immediately evacuated, and a thread left in the cyst, so as to traverse its greatest diameter. The relief which followed this operation was remarkable and complete. I shall not enter into the details of the treatment, which were so analogous to those which form the main object of this memoir. I shall only say, that, after passing through all the phases of a local inflammatory disease, and a very abundant suppuration, it was only on the first of April, 1823, that I was enabled, without danger, to remove the seton. The two openings were quickly cicatrized; and from that time, M. Tallon has enjoyed perfect health, and has not preserved the least trace of this cumbersome disease."

Such are the cases detailed by Professor Maunoir. The following are those which have come under my own observation.

Case I.—Stephen Cassidy, aged 60, of a very wizened, weather-beaten appearance, and residing at Meath hill, county of Meath, admitted into the Richmond Surgical Hospital, under my care, on the 25th of June, 1831. This man has a very large tumor, which occupies the whole of the front and left side of the neck. At its upper part also, it extends into the left side of the neck, and thence passes obliquely downwards to the left sterno-clavicular articulation, at which point it terminates in a rounded projection, and then sweeps upwards and along the left clavicle to within two inches of the left acromion. The whole of the tumor, particularly that part of it which covers the thyroid gland, is remarkably prominent; gives a perfectly distinct sense of fluctuation, and is quite free from any appearance or feel of pulsation. Its integuments are of a natural color, and so thinned as to be almost diaphanous; and numerous small veins are seen ramifying beneath the distended skin; but on examining the swelling, in the ordinary way, by transmitted light, it is not found to be transparent at any point. He complains of no difficulty in breathing or swallowing, or of any inconvenience whatever, except that arising from the great size and unsightliness of the tumor. He states that the disease commenced about twelve years ago, by a very small, moveable swelling in the centre of the triangular space above the acromial third of the left clavicle; and that this lump had gradually, and, without the least pain, increased to its present size. He is very unwilling to allow the tumor to be opened, and assigns as a reason that a *medical* gentleman had cautioned him against ever permitting it to be

opened, as the consequence would assuredly be instant death by hæmorrhage.

Having, with considerable difficulty, and after a delay of five days, succeeded in removing his fears on this account, I resolved, as this was the first case of the kind that I had seen, on merely making an exploratory puncture into the most depending part of the tumor, which was that corresponding to the left sterno-clavicular articulation. I proceeded thus: a transverse fold of the skin covering this part being raised, it was divided by the shoulder of a lancet, when immediately the sac, very thin, and covered with numerous small veins and arteries, protruded through the incision. The point of the lancet was then passed beyond its shoulders into the protruded sac, and a large quantity of reddish serum discharged. At first, the stream appeared so very red that, fearing it to be of pure blood, it was closely examined, and found to consist of two currents, one serous, and the other very slender, and evidently proceeding from a few small arteries on the outer surface of the sac, which had been divided by the lancet. It was observed also, that almost from the instant that this fluid began to pass off, the tumor began to pulsate, but much more strongly above the left clavicle, than at any other part. In a few minutes, the whole of the tumor was evacuated, and all unusual pulsation ceased. The thyroid gland could now be readily felt, and, after careful examination, was found in a perfectly natural and healthy state. Successive layers of lint, steeped in cold water, were then laid along the whole of the left side of the neck, and over these a wet calico roller was applied, so as to exert a moderate degree of pressure. A similar fluid continued to be secreted and discharged by the sac, the dressings became thoroughly soaked, of a reddish color, and so tightened as to be distressing and require their removal. This discharge continued to flow for three days, wetting, each day, a considerable quantity of old linen, yet without appearing to produce the least debility. On the fourth day it ceased, the opening in the sac and that in the skin having healed; and on the following day, the tumor regained its former size and general appearance.

It was now my intention to again puncture the tumor, and to pass a seton through it; but the patient obstinately persisted in refusing to submit to the second operation, on the plea of an urgent necessity to go home. He was discharged on the 10th of July, faithfully promising however to return in a few weeks. Since that time, I have neither seen nor heard of him.

Case II.—Mary Kelly, aged 60, healthy, and of temperate habits, admitted on the 17th of May, 1833, into the Anglesey Hospital and Dispensary, under the care of Mr. Hayden, on account of a large tumor which she has in the neck. She states that, about thirteen years ago, she perceived, for the first time, a round, hard, moveable tumor, about the size of a pea, and free from pain or discoloration, situated in the

inferior posterior triangle of the neck, and immediately above the greatast convexity of the left clavicle. In the course of a month after, it enlarged to the size of an almond, and became much harder. From that time it increased gradually and imperceptibly, until about two months ago, when its growth became, and has since continued to be, very rapid. About three months ago, she had a cough so violent as to deprive her of rest for five weeks, at the end of which time she began to bleed profusely from the nose and mouth. The bleeding continued for three days, coming on regularly every fourth hour, and amounted to about three pints; but it completely removed her cough. She never had any bleeding from the nose or mouth either before or since that time. During the last fortnight she has suffered much from an indescribable kind of pain, passing occasionally across her back, and down her right arm as far as the elbow joint; the left arm not being in the least affected.

The tumor is now of considerable size; extending from the clavicle (the anterior half of which it covers) to the buccinator and other muscles of the face, and, in fact, occupying the front, and nearly the whole of the left side of the neck. Its shape is somewhat pyramidal, the base being above and the apex below. It conveys a distinct sense of fluctuation, but as if the fluid were contained in a number of distinct cysts. There is no discoloration of its integuments, but the external jugular vein is more distended than usual. No pulsation is perceptible in any part of the swelling. Respiration and deglutition are not seriously affected. She has more difficulty in swallowing fluids than liquids, and even the latter are sometimes arrested in their progress, but never permanently.

The patient having consented, the operation was immediately performed by Mr. Hayden, assisted by Dr. O'Beirne, consulting surgeon to the institution, and in the following manner. The skin covering the highest point of the tumor being pinched into a transverse fold, this fold was divided so as to leave a longitudinal wound about an inch long. Some scattered fibres of the platysma were next divided, until the sac came fairly into view. The sac was then freely punctured with a lancet, and a quantity of dark, coffee-colored fluid discharged. While this fluid was escaping, a blunt probe, armed with a skein of silk, was passed into the opening, and its point made prominent at the most depending part of the tumor. Incisions were then made at this point through the skin and into the sac; the probe was withdrawn, and the silk left in the usual manner of passing a seton. The tumor being now completely emptied, the thyroid gland was carefully examined, and found quite free from enlargement, hardness, or any other morbid condition perceptible to the eye or touch. On examining the sac also, at its upper part, and separating it from the parts beneath, which was easily effected, another but much smaller cyst was clearly seen and felt at a considerable depth, and

situated so directly over the carotids, that it was not considered safe to puncture it. Feeling weak, she was placed in bed, and cold cloths were applied over the seat of the tumor. During the night, she was restless, feverish, and complained of pain passing from the left side of the neck to the corresponding mamma. Relieved by an anodyne draught. May 18th. Complains of the same pain; pulse 100; tongue white; skin hot and dry; bowels confined: ordered a draught of rhubarb and magnesia every four hours, until the bowels are freely opened. 19th. Bowels have been freely moved yesterday, had some sleep last night, but disturbed by a severe cough; still feverish, complains of the same pain in the neck and mamma: ordered a pectoral mixture, with tincture of hyoscyamus, and the neck to be covered with a light emollient poultice. 20th. Feverish; great increase of pain in the tumor, and extending to the back of the neck; suppuration commencing: ordered leeches to the tumor, a rhubarb draught, and an enema, if necessary; an anodyne draught at night. 21st. Had very little rest last night; purulent matter now flowing freely from the sac; pain greatly subsided: ordered a decoction of bark, with dilute sulphuric acid; and to have some jelly. 22d. Tumor much diminished in size, and greatly improved in all other respects. She complains, however, of severe pain from three enlarged glands situated over the left cervical plexus. Leeches, fomentations, and a purgative draught ordered. 24th. Greatly improved in health and appetite; suppuration diminishing; bowels confined; purgative draught ordered; bark and acid mixture repeated. 25th. Tumor distended with pus; seton removed, and a considerable quantity of pus discharged. 10th July. Has improved progressively, and in all respects, since last report. There is now a small sinus containing a small quantity of matter, and extending downwards from the inferior opening. This sinus laid open; tumor so much diminished that the neck is nearly of its natural size and form. Both the superior and inferior openings are closed. The cervical glands remain indolently enlarged, notwithstanding the application of small blisters, camphorated mercurial ointment, ointment of hydriodate of potass, and various other agents. Discharged in perfect health.

This woman was again admitted into the hospital, on the 17th of September following, with a small fluctuating tumor, situated about one inch above the left clavicle, and crossed obliquely, at its centre, by the external jugular vein. Mr. Hayden, assisted by Drs. O'Beirne and Ireland, operated upon it in the same way that he had upon the former, and gave exit to a comparatively very small quantity of the same kind of fluid. Except slight constitutional disturbance, and accumulation at one or two points which required to be opened by a lancet, nothing remarkable occurred in the progress or treatment of the case; and the woman recovered, with merely a small indurated elevation marking the seat of the second tumor.

Case III.—T. Broughall, a laborer, aged 60, received under the care of Mr. Adams, into Jervis-street Hospital, on the 26th of September, 1833, on account of a large sized tumor occupying the left parotid region, and nearly limited in every direction by the outlines of that space. Its base is immoveable and deep seated, being fixed to the angle of the jaw, and the other deep parts in that region. Its surface projects irregularly at several points, which have a soft, elastic, fluctuating feel; and the skin covering these points is thin, and of a livid red color; and when looked at from a distance, its general appearance is such, that it might easily be mistaken for fungus hæmatodes. He complains of stinging pains, darting occasionally through the tumor. The character of his countenance is peculiar; the affected side being devoid of all expression. He is unable to close or open the left eye perfectly; the tears trickled down the cheeks; the right angle of the mouth is elevated and drawn towards the same side. The general health of the man seems unimpaired. He states that, three years ago he felt, under the lobe of the left ear, a hard kernel which was moveable, and quite free from pain of any kind. It increased gradually and became fixed to the surrounding parts. At length it was occasionally invaded by pain, which has latterly become more frequent in its attacks. About three months previous to his admission, it was punctured by a country practitioner, and a quantity of thin reddish fluid given exit to. Since he came into the hospital, a similar operation has been performed, and with a similar result; the wound healed as it would in other parts. 17th October. An incision made into the tumor, and gave exit to about four ounces of a fluid exceedingly like coffee grounds, and free from odor. The upper and anterior part of the tumor was rendered quite flat and flaccid by the removal of the fluid: compresses of lint, with a bandage wet with cold water, were applied. 18th. Wound healed; the fluid again collected; and the tumor is of its former size and appearance. 21st. Tumor again punctured, and a similar quantity and quality of fluid, containing numerous hydatids, discharged. He complains of having had more pain in the tumor, than he has had since it was first punctured; dressed as before. 22d. Tumor refilled, but has not attained its former size. Towards evening he complained of headache, and burning heat all over him, particularly about the tumor. During the night the tumor burst, and discharged a good deal of fluid. 26th. This day have been observed for the first time, several small moveable adipose tumors on both his fore-arms; these, he says, have been there longer than he can remember. 27th. Tumor burst in the night, and is reduced to half its former size by the quantity of fluid discharged; complains of a slight headache. 29th. Tumor gave way on each of the two last nights, and discharged a good deal. It is now red and painful. He complains of headache and thirst, and insists upon going home to-day; pulse 90. 31st. *Left the hos*pital of his own accord.

Now that all the facts are fairly before us, it will be found that they furnish ample materials for detecting the fallacy of Baron Percy's objections, and showing the additional force which Professor Maunoir's replies acquire from the cases which I have just detailed, as having come under my own observation.

The Baron first objects to applying to a disease of the neck the term hydrocele, which has been so invariably restricted to dropsy of very different and distant organs. In order to show, also, that, when so applied, it is defective in expressing the real nature of the disease, and that the term hydrobronchocele, which he prefers, would be less objectionable, he endeavors to prove that the professor's cases were all examples of the solid bronchocele becoming converted into an aqueous tumor, such as are well known, and have been described by Celsus, Albucasis, Helwig, Heister, J. L. Petit, Louis, Tenon, and Pelletan,* all of whom he quotes. To these objections the Genevese Professor replies, first, that the term hydrocele, by literally meaning nothing more than a tumor containing water; is a general one, and consequently that usage cannot form a valid objection to its being applied to similar tumors, whatever may be the organ in which they are situated; secondly, that his cases show that the disease generally exists independently of any affection of the thyroid gland, and therefore that the term hydrobronchocele, besides being less concise, would convey false ideas of the nature of the disease. This latter part of his defence would have been much more complete, if he had not omitted either to ascertain, or, in detailing his cases, to mention, the exact point of the neck at which the tumors commenced. This important defect in the necessary evidence, however, is fully corrected by all the cases which I have detailed. In the first and second of these, it will be seen, that the tumor commenced in the posterior inferior triangle of the neck, and, of course, at a part very distant from the thyroid gland; that, in the third case, it commenced in the parotid region, which is nearly equally distant from this gland; and that in all of them, the gland is seen to have never been in the least affected.

The Baron next objects to M. Maunoir being considered as the discoverer of a new disease, such as he pretends this to be. The latter replies

* In quoting Pelletan, the Baron states that the former "has seen enormous goitres, in which the integuments, cyst, and fluid were so transparent, that the blood vessels beneath could be seen." Having the strongest doubts of the existence of such tumors in any part of the body, I have had the curiosity to consult Pelletan's works, and find that he makes no assertion of the kind. In his observations on extraordinary tumors, (Clinique Chirurgicale, t. i. p. 208,) he mentions, that, in the act of extirpating a lipoma or adipose tumor situated in the neck, he was enabled to see the deep seated vessels of the side of the neck. It is not improbable that the learned Baron may have been led error on the point, from some confused recollection of this passage.

that, so far from considering himself the discoverer of a new disease, his original memoir contained, first, a full admission that the disease had been often observed, but as often mistaken for bronchocele; secondly references to such authors as appear to have seen examples of it; thirdly, a candid acknowledgment that his own claims were limited to his being the first to show the true nature of the disease, and its most effectual mode of treatment.

The third objection respects the practice of emptying the sac at once, instead of gradually. But M. Maunoir, amongst other arguments advanced in reply, urges the self-evident and conclusive fact, that it would be perfectly impossible to evacuate a tumor gradually, when the means necessary for its removal consist in passing a seton through its longest diameter.

The fourth and last of the Baron's series of objections consists in stating, that, as Albucasis and the most ancient authors have remarked, all tumors compounded of dropsy and goitre present some of the appearances of aneurism, particularly pulsation synchronous with the action of the heart, and communicated by the subjacent arteries, it is surprising that M. Maunoir should have omitted to describe pulsation as one of the characters of the tumors in question. In making this charge, also, he plainly hints that this omission necessarily involves another of great importance, namely, that of a diagnosis between these and aneurismal tumors. In reply to these charges, the Professor goes at once to the point, and answers simply thus: "Too striking not to be remarked," he says, "I should not have passed it (pulsation) over in silence, if it had presented itself to my observation. It must be that this symptom is not so constant as we might be led to suppose from reading the report; to the present time it is only known to me as an exception, of which I am forced to seek for examples in the experience of others."—(p. 125.) He might, however, have considerably strengthened his position, by quoting Heister's case, one of those to which he himself had originally referred, and by extracting from it these words: "et cum nullum arteriæ pulsum in ipso sentiret, malum quoque aneurysma non esse judicabat."—(Halleri Disputation. Chirurgic. tom. v. p. 434.) No sentence can possibly be more in point, or more conclusive against the Baron, than this is. But like every advocate of truth, he has not appealed in vain to the future "experience of others," for no mention whatever is made of such a symptom as pulsation having been observed in the cases related by Delpech or Lawrence; while in all of those which I have detailed, this symptom is pointedly noted as having been absent. In the case of Cassidy, the first which I have related, there was indeed pulsatien, but the reader cannot have failed to observe, that it did not occur before, but after the sac had been punctured, and some of its contents evacuated. *But* this occurrence is easily explained. In every stage of the tumor,

the sac is so filled, that little or no motion is permitted between the particles composing its fluid contents, and consequently, according to a received axiom in physics, these particles are incapable of transmitting, in any sensible degree, the impulse communicated to them by the beating of subjacent arteries, until a certain portion of the fluid contained shall have been evacuated.

We see, then, that all the learned Baron's objections are utterly inconsistent with every fact as yet known on the subject, and that, whether the name given to it be retained or not, it is scarcely possible to doubt the existence of a disease, which it is practically important to be well acquainted with, and to carefully distinguish from cases in which bronchocele has become converted from a solid to a fluid state. We may observe, also, that, in the former, the previous history and peculiar characters of the tumor are quite sufficient to mark the difference between it and all tumors of the latter description.

It is not unlikely that some may be disposed to prefer the treatment by incision, and find arguments against that by seton in the cases here detailed. It may be urged that M. Maunoir's cases show, that the latter mode exposes the patient to infiltration and its alarming consequences; while such an occurrence cannot possibly attend the former plan. But the cause of infiltration taking place in one of his cases is evident. By puncturing the tumor with the common hydrocele trochar, the small size and triangular figure of the wound, aided by the contractility of the skin, enabled the external opening to become closed, before that made in the sac, and thus effusion of the contents of the tumor into the subcutaneous cellular membrane could scarcely fail to take place. It is from the same causes, also, that we are enabled to explain why, when he passed a single thread of silk through the tumor, both openings contracted so firmly as to prevent all discharge, and make it difficult to move the thread backwards and forwards. It is plain, therefore, that he erred in not making a free incision in the skin and sac, particularly in the former, and we see from some of his expressions, as well as from his having at length employed a bistoury in puncturing these tumors, that he became fully aware of his error in this respect. In proof of this being the correct view of the matter, I have only to adduce the fact, that infiltration did not take place in any one of the three cases, which I have detailed, and which were treated by free incisions in the integuments and sac. It is clear, therefore, that this cannot be received as a valid objection against the treatment by seton.

Again, it may be urged that the cases which Heister, Delpech, and Lawrence relate, and in which incision was successfully employed, occupied a considerably shorter time in their treatment, than those which are related here as having been treated by seton. But it should be considered, first, that in M. Maunoir's cases, the period of recovery was

necessarily protracted in consequence of the objectionable mode which he employed in passing the seton; secondly, that the improved method of passing the seton has been tried but in one case, that in which I assisted Mr. Hayden, and which was necessarily unfavorable, from the circumstance of there being several distinct cysts to be removed. Admitting, however the force of this objection to the fullest extent, and that future experience should make no alteration in the present state of the fact, I would still prefer the treatment by seton, simply on account of its not leaving a long cicatrix in the neck; an advantage of great importance, particularly to females.

Circumstances have convinced me that the operation which I have described may be considerably improved. In assisting Mr. Hayden, I observed that when the point of the probe was made prominent at the most depending part of the tumor, and he attempted to cut upon the end of the instrument, the integuments glided from side to side, and so effectually evaded the shoulder of the lancet, that it was necessary to make several attempts before the incision could be completed. This was evidently owing to the fluid contents escaping at the upper opening, and rendering the tumor so flaccid as to enable the integuments to glide freely over the sac. In order to obviate this defect, which causes unnecessary pain to the patient, and awkward kind of embarrasment to the surgeon, it will only be necessary to expose the sac, previous to puncturing it, at the upper and lower extremities of the tumor, by raising and afterwards dividing a transverse fold of the integuments at each of these points. By proceeding in this way, the sac alone opposes the passage of the probe through the lower opening, and no difficulty will be found in cutting into it, so as to allow the instrument to pass, and the seton to be introduced.

After the seton has been passed, I am now disposed to alter my opinion respecting the applications of either a roller or water dressings. I believe that applying a simple dressing, or a light, warm, emollient poultice would be better practice.

To conclude.—It is somewhat remarkable that, out of ten cases which have been related by Heister, Maunoir, Lawrence and myself, and in which the side affected is mentioned, nine have occurred on the left side of the neck. The late M. Delpech, whose untimely and awful fate we must all deplore, does not, if Mr. Lawrence's extracts may be trusted, mention the particular side on which either of his two cases occurred. I have seen the first, but have not been able to procure the second volume of this very distinguished French surgeon's work.

[*Dublin Journal, Sept.* 1834.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. *Wound of the Heart—survival of the individual ten days.* By Dr. Fris.—A man of a robust constitution, aged 26, in an affray with his brother, received a stab in the left side of the thorax a little below the nipple. It is represented, that at the time the wound was inflicted, a considerable discharge of blood took place; the countenance became pale; the forehead was covered with a cold sweat, and the individual was affected with syncope. Drs. Fris and Lojodice, who were called, found him in the following condition:—countenance pale; pulse feeble—sometimes intermittent; slight oppression with difficulty of respiration; deep seated pain in the wound, which poured out a few drops of blood; the intellectual faculties unimpaired. Under all the assiduous cares which could be bestowed upon him, the condition of the patient continued to improve up to the tenth day, when he was seized with a fainting fit in the morning, and immediately expired.

On examining the body, it was found that the wound had penetrated the left ventricle of the heart, and had even implicated the opposite wall of that cavity. An extravasation of blood had taken place into the thorax, which occasioned the death of the individual.

Dr. Fris supposes, that life was protracted by the formation of a coagulum in the orifice of the wound, which served, for the time, to prevent a fatal extravasation of blood.—*Filiatre Sebezio di Napoli. Maggio.—Revue Medicale.*

2. *Prophylactic against chapped nipples.*—In Rust's Magazin fur die Gesammten, Heilkunde, Dr. Strahl recommends the following preparation as a specific against this painful and distressing affection. Those who have had much experience in such cases, will be glad to be possessed of a remedy which promises so much.

℞ Nuc. Gallæ. 3 vj.
Vin. Alb. ℥ vj.

Digest with a gentle heat for twenty-four hours. Compresses immersed in the liquid should be applied to the breast three or four times a day, beginning as early as the sixth month of gestation, and continuing it to the full term.

3. *Chronic Buboes treated by compression.*—A large solid compress is to be fixed on the bubo, and confined by an appropriate bandage. The compress should be constantly kept wet with the vegeto-mineral solution, or some other astringent liquid, and the patient confined to bed. By this procedure, the resolution of a bubo may be generally obtained in forty-eight hours,—at least

where suppuration has already taken place. This condition does not furnish an objection against compression; as the bubo will seldom burst, and will support the pressure very well. Where a rupture has already taken place, the walls of the cavity may be approximated, and the escape of the matter facilitated by properly adjusting the compress.—*Gazetta Eclectica di Verona, Marzo,* 1834.—*Revue Medicale.*

---

4. *Re-union of the external Ear after it had been completely severed.* By D. Mariani.—This was the case of a man, who, in a house of bad repute, had his ear severed in an affray. He carried it away with him, rather to conceal his accident than on account of pain. Dr. Mariani, to whom he applied, resolved to endeavor to obtain the re-union of the separated portion. With this object, having first washed it in diluted alcohol, and clipped away some shreds, he re-applied it, and by means of four sutures, and a piece of gum elastic fixed in the meatus of the ear, secured it in its natural situation. The adjustment was still further secured, by means of adhesive strips and a bandage. He had no hope of obtaining union between the cartilaginous structures, but thought the soft parts might unite.

On the next day he removed the dressings, to see that no displacement had taken place, when he discovered with pleasure, the existence of a red suffusion along the edge of the wound. The individual was affected with fever, thirst, and pain of the head. On the eighth day these symptoms had subsided, and the fragment of the ear had resumed its natural temperature. The extremities of the incision were the first to unite, and that connected with the lobe first of all. The other parts assumed a sloughy condition, and did not unite until the cartilage became covered with granulations. The cure was completed in about a month, and all that remained was a linear cicatrix which was almost imperceptible.—*Filiatre Sebezio di Napoli. Maggio.—Ib.*

---

5. *Discovery of an Insect in Itch, by experiments lately made at the Hopital St. Louis, Paris.*—The antiquity of the disease vulgarly denoted *the itch* will not be contested, and nearly of as ancient a date has been the popular opinion that it is accompanied by an insect to which the appellation *acarus scabiei* has been given. The popular supposition has always existed, not so that of the learned; for although at periods it has by some authors been zealously adopted, it has at others been as obstinately repudiated. The existence of the acarus, however, as an attendant on the itch, is now placed beyond doubt by late experiments at the *Hopital St. Louis* in Paris.

Gale, the French word used to express *itch,* is by some derived from the Latin *callus,* but according to a more judicious etymology it takes its origin from the Latin *galla,* a nutgall,—a supposition which, if correct, would show the antiquity of the belief that an insect is present in the itch, just as the nutgall is produced by the *cynips quercifolii* on the leaves of the *quercus infectoria.* The Arabian physicians, and particularly Avenzoar, firmly believed in the presence of an insect in the itch. It was distinctly described by Moffat, an English author, who wrote in the beginning of the 17th century. Among the Italians, Redi and Bononio have noticed this insect, and, the latter author has given a particular description of its physical characters and its habits. After these writers came Linnæus, who confounded it with the mite of cheese.

It was subsequently made an object of special research by De Geer, who described it so well, and gave so accurate a drawing of the insect, that it was called the *acarus of De Geer.* M. Latreille has placed it among the genus *sarcopte.*

In 1812, the subject again became a matter of dispute, and a series of experiments were instituted in Paris, the result of which was, that the acarus was found, and exhibited to the eyes of both the credulous and the incredulous, and its existence was once more considered an article of medical faith. However, at a subsequent period, M. Lugol, who had for six years taught the existence of the acarus in his lectures on diseases of the skin, on being appointed to the *Hopital St. Louis,* considered it unworthy of a hospital professor to call on his pupil to believe any thing in the absence of ocular demonstration which was within reach. Accordingly, pins, needles, and various probing instruments, together with microscopes, were again in requisition, and employed most assiduously by M. Lugol and his class, but strange to say, the acarus, formerly so complaisant, evaded every research. Other microscopes of greater power were provided, but after several days of scrupulous examination nothing was found.

M. Lugol, from being a firm believer in the existence of the acarus, became, from this time, a decided sceptic, and so fully was he convinced of the impossibility of finding this insect, that, in a conversation with M. Alibert, who rather leant to the opposite doctrine, he declared he would give a prize of three hundred francs to the first student who should extract an acarus in his presence. This challenge was thrown out in 1828, but not until 1834 was it met. Not that the interval was allowed to pass without repeated attempts to discover the insect. Several students sought for it in vain. M. Gales, the head apothecary at *St. Louis,* in 1812, showed what he described as the acarus, and wrote a thesis thereon, accompanied by a drawing, but the insect figured by him was recognised to be nothing more than the mite of cheese. Whether he found the real insect or not is a matter of doubt, but no doubt can exist as to the incorrectness of the drawing he has given.

Three days were devoted to a further investigation at the *Hotel Dieu,*—a doctor of the faculty of Paris presiding, M. Raspail being present, but the three sittings were unavailing. Some time afterwards M. Memer, a naval surgeon, came to the *Hopital St. Louis,* and boasted of having found the acarus; but what he exhibited was nothing but the mite of flour. Believers in the acarus now lost ground, and said little about it, referring to it at all in their lectures only very cautiously. Even the courageous Alibert preferred laying before his class the host of great names in favor of the acarus, to declaring to his pupils his own conviction on the subject.

Thus matters stood, when, about the beginning of August last, a girl presented herself at the consultation room of the *Hopital St. Louis,* to be treated for what she called the itch. Some doubt arising as to the exact nature of the eruption, M. Renucci, an Italian student, offered to remove all difficulty as to the diagnosis, by ascertaining the presence or absence of the acarus, which he said was so commonly found in cases of itch in his country, that the peasants extracted them from each other with pins or needles.

No objection being made to the experiment, M. Renucci examined the girl's hand, and in an instant extracted a small roundish demi-transparent body,

of about two thirds the size of an ordinary cheese mite, and exhibited it in presence of a number of students of the hospital. On being placed on black paper, or on the nail, this whitish speck exhibited the power of locomotion, scampering about with activity, unaware of the noise it might make in the annals of science. On the arrival of M. Alibert, (as it was that professor's morning for receiving patients,) the facts were detailed by M. Gerdy the *interne*, when M. Alibert ordered a *proces verbal*, or report of the circumstance, to be drawn up and signed by the students present, (thirty in number,) reminding them, at the same time, of the three hundred francs offered by M. Lugol.

A short account of the discovery appeared in one of the medical journals, and elicited a reply from M. Lugol, questioning the reality of the occurrence, and treating it as a fresh mystification. But M. Renucci was not to be deterred from pressing his claim to the merit of the "discovery," and backed by M. Alibert, inserted a rejoinder, offering to extract the acarus alive before M. Lugol himself, or the whole faculty.

The affair now began to cause some excitement; nothing was talked of, or looked for, in the hospital, but the acarus; the wards allotted to itch patients, heretofore so quiet, were now thronged with students and visitors, anxious to discover or view the long disputed insect. The day appointed for convincing M. Lugol arrived, and with it a number of scientific persons; amongst others was M. Raspail. Several acari were extracted, placed under the microscope, and seen as plainly as an insect of that magnitude could be. M. Lugol's doubts vanished before the mass of living evidence, and addressing M. Renucci, congratulated him upon his success, and upon the benefit he had thus conferred upon science, at the same time assuring him that the prize of three hundred francs should be forth coming, as soon as he wished to claim it. Upon this occasion M. Alibert declared that the reward should not be limited to three hundred francs, but that he would add a gold medal, bearing the name of the discoverer and the date of the event. Praise is due to M. Alibert for his efforts on this occasion, and his encouragement of M. Renucci, whose exertions would otherwise most probably not have been successfully made. But few insects were found during the first experiments; but stimulated to perseverance by the persuasions of M. Alibert, the searchers for the acari produced them at last *en masse*, and during repeated sittings, and thus forced conviction on unbelievers.

According to M. Renucci, the *acarus* or *itch ciron*, is never to be found in the vesicle. It appears, however, that M. Gerdy, junior, has in two cases extracted the insect from the vesicle, in which situation it has occasionally, but very rarely been found by others. In the great majority of cases the acarus is only to be met with in a small epidermic canal, probably excavated by itself, invariably terminated by one of its extremities in the vesicle, either straight or tortuous, and varying in length from one to three lines. The raised epidermis forming the vault of that canal, presents a grayish yellow dull aspect, which is interrupted most generally towards its non-vesicular extremity, by a dull white opaque speck, betraying the position of the insect, and owing the difference of its hue to the same cause. This extra vesicular position, combined with the minuteness of the insect, partly explains the fruitlessness of past researches. As it seems to be found that temperature exercises much influence upon the activity and bulk of the insect, the season may furnish an additiona

explanation of the want of success upon former occasions. Such being the remarkable position of the insect, it is only necessary to take a fine needle, and, having previously washed the vicinity of a vesicle, to penetrate the vault of the subdermic groove as delicately as possible, so as to avoid mutilating the little creature which it contains, and having captured it, to withdraw it, clinging to the point of the instrument. Place the little shapeless, opaque, whitish body in the field of a strong microscope, and you will be amply gratified by finding this almost imperceptible and inorganic-looking mass start into an insect, having limbs, joints, feelers, &c. We have repeatedly seen and examined the insect by transmitted and reflected light, and can vouch for the following description drawn up by the celebrated Raspail:—

"The *acarus scabiei*, seen through the microscope, presents the form of a tortoise, a shining surface, more transparent in the centre than at the circumference, of a white opaque color. Its other shades would appear to be the result of the division of luminous rays passing through the lens. The head, which may be considered as a perfect retracting sucker, is provided at each side with two articulated feet, terminating at the tarsus, in a funnel-shaped prolongation. The insect is armed with four additional feet, longer than the former, but without the funnel-shaped appendage; this articulation is not at the side, like those of the horse acarus, but underneath the belly; on the back is perceived a number of eccentric lines at short intervals, and having the appearance of joints; the belly presents several dark colored spots; the body and legs seemed furnished with a quantity of hair of unequal length."

There is some doubt as to the number of feet upon which the insect moves, some observers noting eight, and others only six, a difference which is attributed by M. Cloquet to the relative age of the insect, and by M. Gales to the difference of sex.

The existence of the acarus is, then, placed beyond doubt, but its relation to scabies is in clouds and darkness. Is it the cause of the vesicle, and if so, how? Is the vesicle caused by the deposition of its eggs, the development of which determines inflammation—or by the deposite of a poison,—by irritation produced by its members,—or by its bite? Or does it show itself in the individual merely in consequence of the attraction produced by the itch matter, or the filth attached to the person?

A delirium of joy at this discovery every day betrays itself in the amphitheatre of the *Hopital St. Louis*. When it has subsided, a solution of these questions may be effected by careful and continued research. The only rational attempt as yet made towards this solution, is that of Albin Gras, a student at the hospital. This gentleman submitted his arm to a troop of these parasitical insects, and obtained a development of some characteristic vesicles. A subsequent intolerable itching, combined with the external characters, left little doubt as to the power of these insects to communicate the disease. But still the question is not decided, because the matter adhering to the insect may have been the cause of the vesicles, instead of the irritation simply produced by its presence. It has indeed been proposed by one of the professors, (seriously?) to submit the insect to the action of a warm bath before inserting it under the epidermis, and to pay particular attention to washing, brushing, and drying its feet! The experiments are still in progress.

[*London Lancet, October*, 1834.

6. *Artemisia Vulgaris in the convulsions which take place during the period of Dentition.* By Dr. Biermann.—Dr. Biermann attributes the convulsions which occur at this period of life to a combined psychological and corporeal hyperstheuia, which gives rise to a preternatural degree of erithism of the nervous system, and of the brain in particular. To remedy this condition, which often terminates fatally, he determined to try the efficacy of the artemisia vulgaris, or mugwort, which had been previously employed with the most happy effects by Burdach, and Gittermann, in other affections which depend upon a state of irritation of the brain,—as for example in epilepsy. The result realized his expectations, and he has since continued to employ the remedy with signal success. To children of a year old and under, he administers the powdered root, in doses gradually increased, from half a grain to two grains, repeated every hour. This precaution he thinks necessary, in order not to extend the effects of the remedy beyond what are necessary to remove the cerebral irritation. In children over one year old the same care need not be observed, and the article may be given in doses of one or two grains every hour. In either case he remarks, that three doses will generally suffice.—*Hufeland's Journal für Praktischen Heilkunde*, 1834.—*Gazette Medicale.*

---

7. *Identity of Gonorrhœa and Syphilis.* By Professor Hufeland.—"Gonorrhœa arising from infection is always syphilitic, but is modified, and rendered less infectious by the secretion poured out by the mucous membrane of the urethra." This proposition which was advanced by the author thirty years ago, he thinks has been confirmed by long experience.

The following are the arguments by which it is corroborated:—

1. *The same cause.*—Two individuals may be infected by one person,—the one may have gonorrhœa,—the other a syphilitic chancre.

2. *The same effects.*—A person affected with gonorrhœa may communicate syphilis to another, or infect himself with that disease. Gonorrhœa matter introduced into the eye may give rise to a venereal ophthalmia; or a gonorrhœa too suddenly suppressed may be followed by bubo, chancre, condylomata, &c. and daily experience proves, that fluor albus of the female, which supplies the place of gonorrhœa, is capable of occasioning syphilis.

3. *The same treatment.*—Although the professor acknowledges that a majority of cases of gonorrhœa are cured either by the powers of nature, or antiphlogistic treatment; he affirms, that when this is not the case, and pains takes place in the urethra, with inflammation in the throat, and other consecutive symptoms, calomel is always the most efficient remedy.

The difference between the virus of the two affections is, that, that of gonorrhœa is incorporated as it were with the mucous secretion, and acquires thereby a milder character, so that it may lose its infectious quality both as regards a second person and the individual himself. It is besides sometimes thrown off with the mucous secretions. The virus of a chancre, on the contrary, is more active and corrosive, for the same reason that corrosive sublimate, or any other poison, introduced into the system in its isolated state, is more energetic than when enveloped in mucus.—*Journal für Praktisch Heilkunde*, 1834.—*Gazette Medicale.*

8. *Tetanus cured by Prussic Acid.* By Dr. Ermlund.—A stout robust man was attacked with tetanus and trismus, after exposure to cold, which was allowed to continue a fortnight before a physician was called. He was treated at first by repeated bleeding, cathartics of calomel and jalap, blisters and the warm bath. The prussic acid was then administered to the amount of twenty to thirty-five drops per diem, and was productive of a very marked effect. The spasms ceased at first about the neck,—then in the extremities, and finally in the muscles of the jaw. It should be remarked, however, that mercurial frictions were employed at the same time, and pushed to the extent of salivation. Previously to resorting to the acid, large doses of opium had been administered without any benefit.

[*Medicinisch Chirurgische, Zeitung*, 1834.—*Ib.*

---

9. *Iliac Aneurism and Ligature of the Aorta.* By Dr. John Murray, Cape of Good Hope.—A summary of this case is, that a Portuguese seaman, of spare habit but good constitution, was admitted into the civil hospital at the Cape, January 22, 1834, laboring under a large aneurismal tumor occupying the right iliac, hypogastric and inguinal regions. He supposed the disease must have commenced eight months before, as at that time he underwent great fatigue and exposure in whale fishing. The tumor, however, did not attract his attention until about three or four months ago. He was able, nevertheless, to go about in pursuit of his avocations, although he experienced much pain, and it was not until within a fortnight previous to his admission that the tumor enlarged rapidly, and was attended with such acute pain of his limb, groin and loins that he was no longer able to walk. The limits of the tumor at the period of his admission are, above—a line extending from the umbilicus to the lower ribs; downwards, a couple of inches below Poupart's ligament; inwards, the linea alba; and outwards, the ilium. It pulsates, and presents the other characters of an aneurism. The limb is swollen, tender to the touch, and flexid upon the abdomen. Suffice it to say, that after various prescriptions and consultations, it was finally agreed to apply a ligature to the aorta, as the only alternative, as the individual was suffering greatly, and his condition becoming every hour more hazardous. It may be stated, that of four professional attendants who saw the case, two doubted or opposed the expediency of the operation, while the other two thought it held out some prospect of success.

The operation was performed by Dr. Murray by candle light—the patient lying in bed. An incision was made on the left side of the abdomen, commencing near the projecting extremity of the tenth rib, and extended downwards in a curvilinear direction, more than six inches, to terminate an inch in front of the anterior superior spinous process of the ilium. The convexity of the incision was towards the spine. The next step of the operation was to divide the broad muscles of the abdomen one by one, thus exposing the fascia transversalis, which was cautiously divided with scissors on a grooved director, in order to avoid wounding the peritoneum. This latter membrane was next cautiously detached from the iliac fascia by passing the fingers and hand flat between them. The left common iliac was thus reached, and immediately afterwards the finger rested on the aorta. Finding that the tumor extended close up to the bifurcation of the aorta, the operator proceeded to detach

the nerves and sheath which surround the vessel, which he accomplished in part by a cranial elevator!! but chiefly by his nails, having his "*mind at his fingers' ends.*" The isolation accomplished, a ligature was passed by means of an aneurismal needle, and the ends were brought out at the wound, to enable the sons of Æsculapius, while thus holding up the peritoneal bag, "*to see this great vessel pulsating at an awful rate.*" After having satisfied their curiosity upon this point, the ligature was drawn, and the pulsation ceased below.

"The pulse at the wrist, during the time, underwent no sensible alteration either in strength, fullness, or frequency; nor did the vascular organization of the head seem to be abnormaly congested or excited by the sudden check to this great stream of the circulation. The tightening of the knot did not seem to occasion him any great pain, nor to cause any unusual sensation or shock in the vascular, nervous, or respiratory systems. His first complaint was, that his left leg had become as benumbed and useless as his right, and that we had done him bad service in laming his good leg, which he did not expect, and lamented it bitterly; and on feeling the aorta, it was found to be full, and pulsating with very great strength above the ligature, but empty and motionless below it. The ends of the ligature were now brought out exteriorly, and the lips of the wound drawn together by three sutures and adhesive straps, over which a compress and bandage were applied.

"Pulse, about an hour after the operation, 116, regular and firm. Twelve Guttæ Nigræ were administered to him in ℥ ss. of camphor mixture.

"From the time that the ligature was tied, besides complaining of deadness of the left thigh and leg, he very soon began to express having a painful sensation of distention of the bladder, which gradually increased. A catheter was introduced, by which an ounce of urine was drawn off, and the bladder quite emptied, but without relieving the sensation. A flexible tube was also put up by the anus, beyond the sigmoid flexure, under the impression that there might be flatus in the intestines, and an enema was administered; but still for more than an hour his incessant cry was, "My bladder will burst: why do you not pump my water off?"

He became easier about half past two o'clock, smoked a cigar, and desired a bottle of wine by his side. Tranquil from three o'clock—slept at intervals—complains of pain in lower extremities and pubic region—countenance less anxious than yesterday—pulse 120, equal and firm. Temperature of right ham 89½, left 88½, axilla 98. From half past two o'clock, P. M. on the 27th, his symptoms took an unfavorable turn, and he continued to grow worse, notwithstanding free stimulation and all that could be done for him, and expired at fifty minutes past nine, not quite twenty-three hours after the operation.

Here then ends the catastrophe of the third case in which the aorta has been tied in the human subject. We trust it may be the last. We sincerely trust that the age of cutting and slicing is near its end, and that under the rapid progress which pathological science is daily making, we shall find the fondness for operating abated,—a greater number of cures accomplished without such a procedure, and that the knife will neither be resorted to in cases where it is not needed, nor in those in which it can be of no avail, as we feel assured it never can be in cases belonging to the class of that we have reported. Feeling as we do in reference to all such operations, we are anxious to urge upon those junior members of the profession who may experience a

carving propensity, a most solemn caveat, and to warn them against imitating the good intentions of the operator in this case. Under these impressions, we have condensed the most important features of the report from the London Medical Gazette, for October, 1834, not that we would have the example imitated, but for the value of the pathological fact.

---

10. *Employment of Electricity in Medicine.* By Dr. Sæves.—In the course of the year 1831, one hundred and forty-seven individuals affected with various maladies, were treated by electricity, of which number forty-seven were cured. This agent displayed its greatest efficacy:—1. in paralysis: 2. in six cases of epilepsy, three of which were cured perfectly, and the other three experienced a manifest amelioration: 3. in three cases of dyspnœa the electric fluid was passed along the pneumogastric nerve with advantage: 4. a youth aged eight years, who had been for the space of a year deprived of the faculty of hearing and speech by a violent attack of disease, was cured by electricity continued for four months.—*Medicinisch Chirurgische Zeitung; and Gazette Medicale,* 1834.

---

11. *An easy process for the preparation of Mercurial Ointment.* By M. Coldefy Dorly.—The importance of this process consists in the previous preparation of the lard, by which it acquires the property of extinguishing in a few minutes, from twenty-four to thirty-two times its weight of mercury.

The lard previously melted, is to be poured into a vessel of large size, containing cold water, in order that it may be properly divided. It should then be placed upon a hair filter, the openings of which are moderately large, and preserved in a dry place, excluded from dust. In about fifteen or twenty days it will be capable of extinguishing seven or eight times its weight of mercury, and this faculty will go on increasing, until finally at the expiration of some months, when it has become more rancid, and acquires a greater degree of tenacity, it will be capable of extinguishing thirty-two times its weight of the mineral. It is somewhat remarkable that lard, which has become infinitely more rancid under any other circumstances, does not possess the same properties.

When it is desired to obtain a strong ointment, the author recommends the following form:

℞ Adep. Preparat. ʒ ij.
Argentum Vivum, ℔ iij.

Triturate them in a mortar of moderate dimensions, the bottom of which is ovoid. If the lard is too firm, a little olive oil may be added, and the mercury will disappear in four or five minutes, the compound assuming a gray pearly color. Two pounds and fourteen ounces of fresh lard, about three-fourths solidified, must then be added, and the whole well incorporated.

A commission appointed by the society of Pharmacy to report on this subject, fully verified the statement of M. Coldefy.

[*Journal de Pharmacie, Août,* 1834.

---

12. *Muriate of Ammonia in large doses in Phthisis Pulmonalis.*—1. A young man, aged about 28, entered Catharine Hospital at Stuttgard, laboring under cough and purulent expectoration with which he had been affected nine months. He also had occasional night sweats, and was besides affected with

fever, disposition to vomit, and emaciation. There was pectoriloque in the subclavicular region. He took a drachm of muriate of ammonia every two hours, notwithstanding the diarrhœa, colic, and great prostration of strength. A gradual improvement of all the symptoms took place, and after persisting in this course for three months, during which time he took a pound of muriate of ammonia, all the symptoms, and even the pectoriloque, had disappeared. His improvement continued, and he bore the cold of winter well, until about the first of February, 1830, when he experienced an attack of inflammation of the lungs which was dissipated without medical treatment.

2. A journeyman joiner, aged 23, of a cachectic constitution, who had been affected with a cutaneous eruption, complained of vertigo, an uneasy sense of oppression and irritation in the left side of the chest, with cough, bloody particled expectoration, and a diarrhœa of some weeks continuance. The left side of the thorax furnished a dull sound on percussion, manifest evidences of pectoriloque could be discovered at numerous points; but the respiratory murmur was scarcely audible. On the 9th of November, the following powders were directed for him: ℞. Sal. Ammon. ʒ i. Flor. Sulph. 3 ij. m. d. in part. æquales xxiv. and a tartar emetic plaster was directed for the chest. Under this course his health was rapidly restored, and no evidence of a disposition to relapse remained.

3. A female, aged 30, of a phthisical habit, who had suffered repeated attacks of pleuritis, and an obstinate long continued cough, was attacked with a sense of constriction in the chest, fever, and copious purulent expectoration mixed with particles of a cheesy consistence. The catamenial discharge was suppressed. She was directed a drachm of muriate of ammonia every two hours, the use of which broke up the inflammatory condition. The plaster of tart. emetic, and afterwards of Spanish flies, was at the same time applied to the chest, and kept discharging for some time. After remaining in the hospital three months, during which time she took nine ounces of sal ammoniac, she was discharged in good health.

[*Otto's Bibliothek, for Læger*, 1834.

---

13. *Sudden death from the introduction of air into the veins.* By Dr. Ulrick. In extirpating a tumor which occupied the side of the neck, and included the vessels and nerves of that region, Dr. Ulrick discovered that he had opened the internal jugular vein. Not a drop of blood escaped, and the walls of the vein did not collapse, but remained distended like an artery. The inner surface presented nothing remarkable, but externally a whitish appearance was observed which is not natural to a vein. The assistants thought they heard a hissing sound when the vein was cut. Immediately a bloody froth escaped from the lower orifice; the patient fainted; experienced slight convulsive motions of the face, and was attacked with opisthotonos. The countenance was pale, the pulse small, the respiration slow, and death took place in about a minute. Twenty-two hours after death, scarcely any evidences of putrefaction existed. The integuments of the cranium, when divided, poured out a considerable quantity of blood, and the brain was firm, and presented red points. The carotid, the trachea and vagus nerve, were found to be uninjured. The internal jugular was embedded in the tumor; and a little above the point at which it was divided, was obliterated. On opening the pericardium,

the right auricle was found distended and elastic. It immediately collapsed on being punctured, although no blood escaped. The blood contained in the right ventricle, and in the body generally, was black and fluid.—*Medicinische Zeitung*, 1834. *Journ. des Connaissanses Med. Chirurg.*

---

14. *Sugar of lead and opium in Pneumonia.* By Dr. CHEVALIER.—The author reports a case of Pneumonia successfully treated, according to the method of Richter, (Rust's Magazine, vol. 39, Stuck. 3,) which consists in administering every three hours, a spoonful of the following mixture:

℞ Acitat. Plumbi. gr. iv.
Tinct. opii ℥ ss.
Aqua dist. ℥ v.
Syrup Althæa, ℥ i. m.

[*Medicinische Zietung.—Ib.*

---

15. *New species of Neurosis.*—C. A. Viola, aged 26 years, of irritable temperament, came under the care of Dr. Semmola; his symptoms were as follows:—At 11 years of age he was subject to convulsions, which came on both in waking and sleeping, and were preceded by piercing cries and a total suspension of the intellectual faculties. The patient would then run rapidly forwards, turning neither to the right nor left, without falling and without deviations from any thing in his way, provided it were not an immoveable obstacle. If he happened to meet with a stair-case, he ran up it with the same rapidity, but still in a straight direction. The extent of his career was generally twenty or thirty steps. He would then stop, and his intelligence would return; his countenance was more animated than usual, his eyes glittered, but his mind was confused, and he had no knowledge of what had been passing. He only recollected having lost his senses, and of having felt something like an *aura* or vapor, which rose from his feet to his head, passing through the spinal column, and whose arrival at the brain was followed by loss of ideas.

These convulsive movements continued at irregular intervals during seven years; sometimes they came on twice in one day. After some time their form became altered; the patient was no longer urged to rapid running; he fell down and commenced rolling over in one direction for the space of ten or twelve steps; his senses also left him, nor did they return until the extraordinary rotation had ceased; during the whole paroxysm he uttered loud shrieks. The last two years these attacks have been more frequent and prolonged; when the rotary movement has ceased, the most extraordinary muscular contractions take place. The fits come on more frequently at night than in the day, during sleep than in waking; he rarely passes a few days without suffering from them; he frequently has as many as four in one day.—*Il Filiatre Sebezio. August*, 1834.—*London Medical and Surgical Journal, November*, 1834.

---

16. *Hydatids of the Kidneys passed by the Urethra*—Elijah Jones, æt. 27, a comb maker, of pale complexion and slender form, applied to Dr. Duncan on the 13th of May. He brought with him several portions of a membranous looking substance, having a pearly, semi-opaque, pulpy appearance, and which he said he had passed with his urine three days previously. He stated

that he made water rather oftener than usual, and sometimes with difficulty; and that he had a constant shooting pain in the perinæum, which was increased after micturition. He had also occasionally a sense of weakness in the right lumbar region. Urine of natural appearance, and functions natural.

On examining the substances above mentioned, one was discovered of a globular shape, and about an inch and a quarter in circumference, evidently an hydatid of the genus Acephalocyst. It was filled with a transparent fluid, having floating in it another very small hydatid, which gravitated in the surrounding fluid. The remainder of the substances consisted of the coats of seven or eight hydatids which had burst, and which, when filled with water, varied in bulk from the size of a pea to that of a pigeon's egg.

He stated that seven months ago he got a bad cold, and suffered from pain above the right hip, and in the perinæum; and that five months ago, a blister was applied, which removed the pain above the ilium, but that he still feels occasional uneasiness there. About a month ago he passed several hydatids, which caused some obstruction to the flow of urine, but no more appeared until three days ago, although during the last month he has had constant pain in the perinæum, apparently near the neck of the bladder. He was ordered to take diluted muriatic acid, twelve minims three times a day.

16th. Another hydatid has been passed, (burst.) The pain is nearer the end of the penis.

24th and 25th. Two more hydatids passed, which obstructed the urine for some time. No pain in the perinæum now; it is generally felt six or seven hours before the hydatid is expelled.

June 3d. No more hydatids have appeared. Complains only of weakness in the back and hip.

The above case is interesting from the extreme rarity of its occurrence. Dr. Craigie says, that "the uterus is the only cavity, with mucous surface, in which inspection shows that hydatids have been found; and there can be no doubt that, in this case, they were formed in the kidneys, and probably increased in size after their descent into the bladder.

The following account of the post mortem appearances in one of the few instances of the kind on record, is taken from the Philosophical Transactions, 1687. Dr. Tyson, in stating what was observed in the bladder, says,—"Therein, upon apertion, we discovered a very strange sort of cystes or bags, of the exact figure of eggs, of several dimensions, some larger than goose eggs, others as big as hen eggs, to the number of twelve in all; and about eight of them whole and replete with a limpid serum; . . . all of them loose and free, without the least adhesion, either to one another or to the coat of the bladder; . . . nor could we imagine that this miserable patient could possibly make any water but what happened upon the breach of some of these watery tumors, when the bladder was crouded beyond its dimensions. . . . . The *ureters* were of the largeness of the small guts in children, so that they could easily admit two fingers into their cavity. . . . One of the *vesiculæ*, being opened, had a large cluster of small *ova* as big as grapes, all replete with liquor. All the rest contained nothing but *serum*." Two small ova were observed at the entrance of each ureter, having descended from the kidneys.—*Liverpool Medical Journal, July.—Dublin Journal, Sept.* 1834.

EDITORIAL NOTICES.

Dr. Reynold's paper came to hand too late for the present number. It shall appear in our next.

We repeat our invitation to the members of the profession generally, to communicate the results of their experience for insertion in our pages. Papers of a *practical* character will always command our preference;—those which consist of mere speculation possess but little interest to our readers.

The circulation of our Journal has gone on regularly increasing, to an extent beyond our expectations. For this our warmest thanks are due, and we should be gratified to acknowledge special obligations to several of our professional friends, who have manifested a warm interest in our success, were it not that such a course might be considered invidious. The Journal is now established on a solid, and we trust, permanent basis, and we shall accordingly make considerable improvement in the editorial department, in proportion as our means increase. In its mechanical execution, we believe we may safely say, it is not surpassed by any other Medical periodical.

A correspondent has suggested to us, that there are persons in our city, openly infringing the laws which it is the duty of the Medico-Chirurgical Faculty of the state to see enforced. He neither desires monopoly or protection, but complains that it is unjust to exact of him and others, a pecuniary consideration for the right to practise the profession in the state, while those whose qualifications are not known, are allowed to do so without any such compliance. We hope the censors will look to this. We shall not at present discuss the expediency of legal enactments for the suppression of quackery; but when such laws exist, if they are not enforced, it is better they should be repealed.

We have been favored by Dr. Wm. N. Baker, of this city, with a copy of his Introductory Lecture, delivered at the opening of his course of Lectures on Anatomy and Physiology, and which has been published by the Class. The circumstance of its having been demanded for publication by the pupils, shews the favorable manner in which it was received by them, and we doubt not it will be read with interest. It is printed in our friend Toy's best style.

London University. We have heard it currently reported in this country, and we believe the report has been by many accredited, that since 1831, the Medical Department of the London University has been regularly on the decline. The following statement taken from Professor Lindley's address, will show that the reverse is true. The number of students entered in 1831 was 248: in 1832, 294: in 1833, 353.—A hospital, with accommodation for 125 beds, is being opened in connexion with the Institution, and Mr. Liston of Edinburgh, has been appointed Professor of Clinical Surgery.

We have recently had an opportunity of examining a remarkably convenient and complete apparatus, invented by Lem'l B. White of New York. It is so constructed, that it may be employed as a stomach or breast pump;—a cupping and enemeta apparatus, or for the purpose of distending the bladder

with fluid, and again withdrawing it. Notwithstanding the extensive application of which it is susceptible, it is so exceedingly simple in its construction, and especially in the arrangement of its valves, as to render it but little liable to those derangements to which the more complex instruments are so much exposed. We think it well suited for the fulfilment of the purposes for which it is intended,—and can confidently recommend it to the profession. We have before us the testimony of several distinguished members of the profession in favor of the apparatus, but regret that we cannot give insertion to their certificates, inasmuch as from their form, they are only suited to our advertising sheet.

The following Periodicals have been received within the month.

Revue Médicale Fraçaise et Etrangère; Journal des Progrès de la Médecine Hippocratique, for July and August, 1834. (*In exchange.*)

Annales de la Medécine Physiologique, par F. J. V. Broussais, Nos. 7 and 8, for July and August, 1834. (*In exchange.*)

Journal des Connaissances Medico-Chirurgicales, No. 3, for November, 1834. (*In exchange.*) Nos. 1 and 2 of the second volume not yet received.

Journal Hebdomadaire des progrès des Sciences et Institutions Medicales, Nos. 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, for July, August, and September, 1834. (*In exchange.*) No. 27 not received.

Journal de la Medécine Homœopathique, Nos. 15, 16, 17, 18. (*In exchange.*)

Encyclographie des Sciences Medicales, vols. 22, 23, 24 and 25, for June, July, August, and September. Each volume of this work, which is published monthly at Brussels, contains a reprint of all the French medical periodicals for the current month—about fifteen in number, together with the Bulletin Médical Belge, edited by Dr. Marinus.

The Edinburgh Medical and Surgical Journal, No. cxxi, for Oct. 1834.

The Dublin Journal of Medical and Chemical Science, No. 17, for Nov. 1834.

The London Medical and Surgical Journal, (Dr. Ryan's,) Parts 32, 33, for Sept. and Oct. 1834.

The London Medical Gazette, Parts 5 and 6, for Sept. and Oct. 1834.

The Lancet, for Sept. and Oct. 1834.

The Boston Medical and Surgical Journal, vol. xi. Nos. 8 to 19, 1834. (*In exchange.*)

The Boston Medical Magazine, Nos. 9 and 10, for Dec. (*In exchange.*) No. 8 has not come to hand.

The Western Medical Gazette, for Nov. 1834. (*In exchange.*)

The Western Journal of the Medical and Physical Sciences, edited by Danl. Drake, M.D. No. 29, for April, May, and June, 1834. (*In exchange.*)

The United States Medical and Surgical Journal, Nos. 3 and 4, for October and November, 1834. (*In exchange.*)

Authors and publishers who may be desirous of having their works noticed, are requested to transmit us a copy as soon after publication as possible, when they will receive the earliest attention. The frequent intervals at which the Archives appears, renders it a convenient vehicle for the early announcement and analysis of new publications.

NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL SCIENCE.

VOL. I.] FEBRUARY, 1835. [No. 5.

ARTICLE I. *Anatomical Structure of a Bifurcated Umbilical Chord, in a Case of Twins.* By WM. S. REYNOLDS, M.D. of Barnwell, South Carolina.

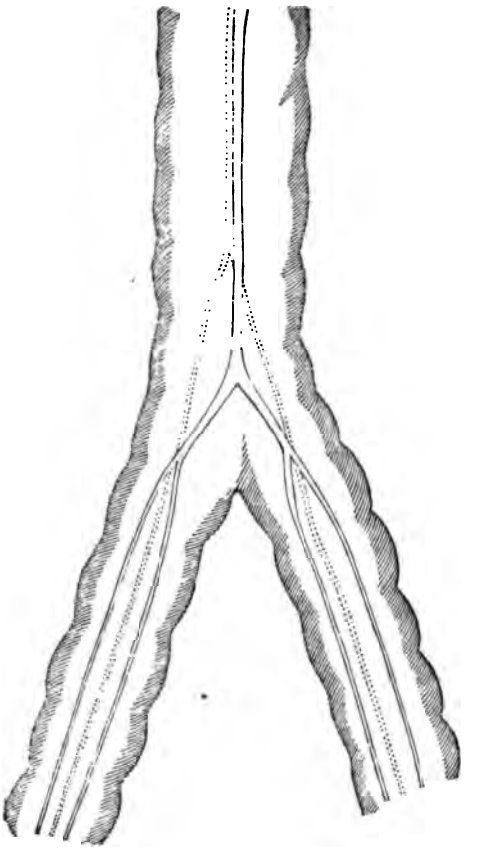
ON the morning of the 13th of October last, Mrs. R—— was taken in labour with twins. One of the children was delivered by the midwife in attendance, and difficulty being experienced with the second, my services were requested. Upon examining, I found that it was a presentation of the right arm and shoulder; I proceeded immediately to turn and deliver by the feet, which was soon accomplished. The placenta, (there was but one,) was expelled soon after, and presented the following rather unusual circumstance.

Instead of two chords originating from the placenta, there was but one, which continued about five inches in length, and then branched off into two, each branch going to one of the children.

I wished to ascertain whether the chord arising from the placenta was merely a union of the fleshy portions of two chords, or whether there was an anatomical difference in the branches and this main trunk.

I first cut across the main trunk close to the placenta, and found that there was but one artery and one vein. The artery was considerably larger than the vein. I next examined each of the branches where they had been separated near the umbilici of the children. They had each two arteries and one vein.

I then dissected the arteries and veins at the bifurcation, and the following diagram will give their location and distribution.



It will be seen that the vein branches off considerably higher up than the artery. The artery and vein in the main trunk are placed close to each other, and run along its middle. The vessels in the branches stand in relation to each other as the points of an isosceles triangle, the arteries occupying the points at the base, and the vein the point at the apex, the latter being equidistant from each of the former.

The points at which the arteries and veins branch, are located in the diagram at precisely the same distance as in the original injected preparation, from which I took the drawing.

☞ The dotted lines represent the vein:—the others, the artery.

ART. II. *Reports of cases.* By ROBERT LEBBY, M.D., Physician to the United States' station, Fort Johnson, Charleston harbor.

CASE I.—*Apoplexy from repletion of the stomach, cured by bleeding from the temporal arteries and an emetic.* In the second number of the North American Archives of Medical and Surgical Science, I read with considerable interest, the fourth case on apoplexy, produced from excessive repletion of the stomach. It brought forcibly to my recollection a similar case, which occurred to one of the workmen employed on the United States' fortification in this harbor, in September, 1829. A colored man, the property of Mr. E., was found on the morning of the 15th of September about day-light, in the rear of the barracks, in a state of apoplexy. He was immediately removed into the quarters—and I requested to see him. Upon first view, he appeared almost beyond the reach of medical aid. His extremities were perfectly cold—the abdomen considerably enlarged, especially about the region of the stomach—his pulse very feeble and depressed—the pupil of the eye contracted, and the action of light producing no effect whatever upon it. His breathing was hurried, and stertorous. Under these unfavorable symptoms, I directed him to be wrapped up immediately in a blanket—applied cataplasms to the ankles and legs—hot bricks to the soles of his feet, and bottles of warm water about the body. I then opened a vein, but to my disappointment did not get more than a gill of blood; I opened another, and another, with no better success. My friend, Dr. James Perronneau, came in, and examined him. We now determined on rubbing the abdomen and upper extremities, with warm turpentine; and I divided both of the temporal arteries just before the ears, and to our satisfaction they bled freely to the amount of about twenty ounces, and then stopped. Both temples were now rubbed with a coarse towel very briskly for a few seconds, when the blood flowed again very profusely. We kept up this excitement occasionally until full forty ounces of blood were abstracted. The spine and body were rubbed with hot turpentine, and hot flannels wet with the same fluid were applied along the spine and over the abdomen. To our great surprise and astonishment, he attempted to move one of

his hands, which had been placed over a hot stone. From the appearance of the abdomen, we concluded that the disease had been produced from eating a hearty supper; and the last accounts that his companions could give of him was, that about eleven o'clock of the night previous, he was sitting by the door of the cook-room eating rice, which he had just cooked. A solution of three grs. of tart. ant. was poured down his throat with considerable difficulty; and in the course of half an hour, he ejected a large quantity of hard half-boiled rice from the stomach. As soon as it appeared partly disgorged, a little warm water was given him, which he swallowed with less difficulty, and in a short time after, smaller portions of rice and pork were thrown up. He appeared after this to be considerably relieved, and his first symptoms gradually wearing off, a gentle moisture appeared over the surface of the body. His pulse assumed a more regular action, and at one o'clock—eight hours after my first seeing him—he spoke, and answered several questions, though incoherently and unconnectedly. A blister was now applied between the shoulders, and one over the epigastrium, and calomel 10 grs. with 20 of jalap, administered. It operated about 8 o'clock in the evening, after an enema of a decoct. of senna and common salt had been injected. From this period to 10 o'clock he had three very copious evacuations. A little warm gruel was given him; after which he fell asleep, and continued in this state until 7 o'clock the next morning.

September 16th. He complained very much of his blisters, which had vesicated very handsomely, and of a burn on the right hand, which was inadvertently produced by the application of the hot stone which had been placed in contact with the hand. He had considerable headache; an ounce of castor oil was ordered, in combination with turpentine, which operated very freely, and in the evening he was better and had no headache. He remained in quarters daily improving, and on the morning of the eleventh day returned to duty. I should notice that this man had been very intemperate until the spring preceding this attack, and from that period, it was believed by his owner, that he had reformed, and had not to his knowledge touched spirits of any kind, up to the date of the attack. He was about 28 years old, and a very muscular, active man—a ship carpenter by trade, and at the time was employed by the United States' Engineer in erecting a wharf at Fort Johnson.

There is very little doubt but the disease was occasioned by the quantity of rice the patient had eaten the night previous; and that the loss of blood from the temporal arteries, aided by the emptying of the stomach of its contents by the emetic, saved his life. The emetic was rather a dangerous experiment, but as the case was considered as almost hopeless, both by my friend, Dr. Peronneau, and myself, the administration of it was admissible, for at the time it was given, we believed that he would die, and that no action whatever could be made on the stomach.

Case II. *Accumulation of fluid between the cranium and scalp.*—On the 11th of May, 1834, I was requested to visit a small colored boy, aged about seven years, the property of Mr. P. of James' island. On seeing the boy, I was forcibly struck with the unusual size and appearance of his head, with his face swollen. On examination, I discovered that there was a quantity of fluid between the scalp and skull—the former very tumid and yielding. He complained of no pain whatever about the head, and his general health was in other respects good, and his appetite unusually so. He was lively and playful, associating with the rest of the children about the plantation, and with the exception of the unusual size of the head, no person would have supposed him at all indisposed. I directed a powder of calomel, jalap and nit. pot. to be given him that day. It operated very well, and the next day put him upon the use of digitalis and nit. æther, with a grain of blue pill at night, as an alterative. This course was pursued for a week, without the slightest benefit. The size of the head gradually increasing, a blister was applied to the back of the neck, and dressed with savin oint. with no better success; the head continuing to increase in size until the 24th of May, when it attained the size of twenty-five inches in circumference. I then determined on puncturing the scalp, and drawing off the fluid. I ordered the boy to be brought to Fort Johnson the next morning; and in the presence of my friend, Dr. Thomas Logan, I introduced a trocar over the left ear a little posteriorly, and succeeded in drawing off eight ozs. by measurement, of a watery fluid slightly tinged with blood. The patient complained of no pain from the operation. The scalp was left lying loosely over the skull, except a little on the back of the head. The whole head was covered with a cap and a bandage drawn

moderately tight over it, with the object of keeping up, as far as possible, an equable degree of pressure over the whole head. The digitalis was resumed with a grain of blue pill at night; and to my great gratification the boy continued to improve daily. The fluid did not re-collect, and at the expiration of four weeks, I discharged my patient cured. I would observe, that this child the fall previous had had a severe attack of fever, connected with worms. During this illness, eighty-five worms passed away from him.

After the operation he continued to improve, and had no return whatever of the disease. His head resumed its natural appearance, and his health continued good throughout the summer. Unfortunately, however, he was attacked with bilious remittent fever late in the fall, during which attack he had several convulsions, which were no doubt occasioned by the irritation of worms—as a few were expelled, and a considerable number came off after death had ensued. I have been somewhat at a loss under what head to class this disease, as it could not be literally called hydrocephalus, the term having reference only to water within the cavity of the cranium. Some writers of repute doubt whether such a disease as hydrocephalus ever occurs; and Dr. Good is of opinion that if it does, it ought to be regarded as a variety of anasarca or cellular dropsy, rather than hydrocephalus, or dropsy of the head so called. That the disease does occur, (although I believe the instances are rare) is beyond a doubt—and it is of very little importance whether it be called hydrocephalus or cellular dropsy.

ART. III. *Observations on Chronic Gastritis and Duodenitis, and especially on those conditions usually denominated Dyspepsia, Indigestion, &c.* By the EDITOR.

(Concluded from page 271.)

Treatment.—It is not our intention to enter upon an elaborate discussion in relation to the treatment of chronic gastro-duodenitis; nor do we propose to consider the management of dyspepsia in all the multifarious forms which it assumes. The truth is, chronic inflammation of the stomach is a disease requiring but a limited range of medical treatment, and which, in a majority of cases at least, must be managed more by a strict

attention to diet and regimen, than by the endless farrago of nostrums which have been prescribed for its varying symptoms. Medicine, aided by a rigid observance of a proper dietetic discipline is capable of accomplishing much towards the relief of the bodily and mental sufferings of the individual, but without this assistance, it either proves useless, or becomes decidedly mischievous.

Dietetic treatment.—This being the case, whatever the grade of the disease, or the complications associated with it, the first and most urgent duty of the physician is, to enforce such a course of diet and regimen as will prove compatible with the capabilites of the diseased stomach, and promote the recovery of its healthful condition. This is unfortunately often a difficult point. Volumes have been written on the subject of dietetics, but we are as yet but little better able to adapt the food to the varying capabilities and caprices of the stomach, than we were when destitute of these learned and refined precepts. Daily experience proves, that certain articles are easy of digestion, and that others are with greater difficulty submitted to those changes which are necessary to convert them into the healthy elements of our organization. This is about the amount of our knowledge on the subject, and unfortunately it is of little avail; for the idiosyncrasies of individuals are so diversified, that what is digestible with one, proves highly offensive to another, apparently in the possession of the same degree of health and constitutional energy.

In the treatment of chronic gastritis, the physician must always adopt, as a leading proposition, that the mucous membrane of the stomach is in a state of morbid irritation—that its susceptibilities are preternaturally elevated, and consequently, that this condition is incompatible with healthful digestion, and forbids a continuance of the ordinary diet to which the individual has been accustomed, however light the shades of disease. He must, therefore, by a scrupulous analysis of all the features of the case, and a minute and patient investigation of all collateral circumstances, endeavor to ascertain the degree to which the capabilities of the organ have become impaired, and the extent to which its susceptibilities are increased, in order that he may so regulate the quantity and quality of the aliment, as to ensure its perfect digestion, and at the same time, confine the impressions which it makes upon the suffering organs, within

that range which is compatible with their physiological or healthy acts. Many of the phenomena of such cases convey a semblance of debility. Digestion is imperfectly executed, the constitutional energies languish, and the individual becomes emaciated. But all this is far from being the consequence of a simple state of debility. Every organ, examined in reference to its dynamic powers, must be considered in the two-fold relation of functional and nutritive,—or in other words, in the execution of its appropriate function, and the maintenance of those acts by which it is itself nourished and sustained, and by which the integrity of its vitality is preserved. Thus, the stomach has for its functional act, the contribution of its share to the process of digestion, while the acts of nutrition which are necessary for the preservation of the perfection of the organization of its several tunics and their vital endowment, are accomplished by the circulation and innervation of which they are the seat in common with all the organs. Hence, considered in this manner, it can be easily comprehended, how the imperfect execution of the functional acts of the stomach may convey a semblance of debility, when in reality it is a consequence of exalted irritation of the coats of the stomach, with corresponding modifications in their nutritive acts,—impaired digestion being under such circumstances more the result of increased than of enfeebled action of the structures by which that function is accomplished. The stomach cannot, therefore, be made to digest by stimulating still higher its already inordinately excited vital powers. Its healthful action cannot be restored by loading it with food, or drugging it with tonics and stimulants, but only by reducing the food to that quantity which it can digest perfectly, and without any increase of the irritation under which its mucous membrane is already laboring, and by the institution of such treatment as will be calculated to subdue increased irritation, or diminish the vital activity of the affected structures.

The extent to which it will be necessary to reduce the food, will vary according to the degree of inflammation. We have seen that, in this respect, the disease presents several grades. In some, the inflammation is slight and limited to a small extent of the organ, while in others, it is much more intense, pervades a greater extent of surface, and frequently involves other organs. A much greater reduction will therefore be necessary in the one case than in the other; but in both, the important

point is to ascertain exactly how much food the stomach can digest, without injury to itself, as the whole nourishment of the system must be received through this organ, consequently however important it may be to effect a reduction of the aliment to that quantity which can be taken in and digested without augmenting the inflammation, it is of equal importance, to allow as much as can be managed by the organ compatibly with the observance of this rule. A reduction beyond this would prove highly detrimental, and could not be long endured by the individual, as the powers of life would rapidly succumb under the privation. Errors upon this extreme are, however, much less frequently committed than upon the opposite, and in a large majority of cases, more aliment is allowed than can be digested, and the inflammation of the organ is incessantly provoked, either by the quantity or quality of the food. A relish for the food while taking it, and a feeling of comfort during the entire period of digestion, are perhaps the best criteria, and whenever a departure from either of these conditions is observed, it may be inferred that an error has been committed either in quantity or quality. Dr. James Johnson has asserted a truism, in affirming "that, if an individual who has dined on a pound of beef steaks and a bottle of Port wine, feels as comfortable at the end of two, four, six, eight, or twelve hours after this repast, as he did between breakfast and dinner of the preceding day, he had better continue his regimen, and throw physic to the dogs." Yet there can be no better rule of conduct for the dyspeptic invalid, and if he discover, after taking only a few ounces of the blandest aliment, that his uncomfortable feelings are increased, he should take this as indication, either that he has taken too much, or that the article offends by its quality, and accordingly, abate still more in quantity, or select something suited to the idiosyncrasy of his stomach. In the treatment of chronic phlegmasiæ of the stomach, it will generally be advisable to reduce the quantity of food at first to the smallest possible quantity compatible with the maintenance of the physiological acts of the organs, and only to increase it in proportion as it is found that the stomach can bear it with impunity.

It is not less difficult to fix upon the quality than the quantity of aliment. In deciding upon the former, as well as the latter point, the extent and intensity of the inflammation must be

carefully estimated. Where it is partial and inconsiderable, it will not be necessary to enjoin an absolute avoidance of animal food, provided such articles only are selected, as are most easy of digestion, and provided also, they be dressed in such a manner as to be least apt to offend the stomach. The flesh of very young animals is generally more difficult of digestion than that of those which have attained a moderate age. Beef should consequently be preferred to veal, and full grown chickens, provided they be tender, to those which are very young. Mutton is generally less offensive to the stomach than beef; and pork in all its forms, though well digested by some weak stomachs, should be generally avoided. All meats, moreover, which contain much fat, are injurious, and whatever kind is selected, none but those parts, the fibre of which is soft and tender, should be used, and that for the most part boiled, or broiled, and without the extraneous embellishments of rich sauces and stimulating condiments. Oysters, however, provided the hard muscular parts be rejected, are more digestible than any of these articles, and next to them may be placed the lighter species of game, rare done eggs, &c. Milk, especially if it be previously boiled, is easily digested by most stomachs, even though their powers be considerably impaired—and mixed with a third of water, we have generally found it the lightest species of animal food. With some individuals, nevertheless, it is apt to become acid, or to otherwise offend the stomach, and be rejected in a curdled condition sometime after it has been taken. Of the vegetable aliments, it may be affirmed, in general terms, that all, except the farinaceous articles, are injurious to those who are affected with diseases of the stomach. They are, with these exceptions, exceedingly difficult of digestion, and are withal, much more prone than animal food, to give rise to acidity and flatulency, and all the distress which these conditions occasion. The light farinaceous articles, however, generally set well on the stomach, and if used in moderation, and properly done, they constitute the best diet for those who are affected with diseases of the stomach, and who cannot take animal food in any of its forms.

Guided by these data, such a diet must be selected, as is likely, to prove compatible with the condition of the stomach. Even where the degree of inflammation is slight, great advantage will generally be secured by restricting the patient at first, for a few

days, to light farinaceous aliment, and only allowing him a more generous diet, in proportion as it is ascertained that he can sustain it with impunity, or after such a degree of amelioration has been obtained, as will render such a course proper. When the disease is more intense, this plan will not only be imperatively demanded at the outset of the treatment, but must be persevered in until the force of the disease is subdued,—a due regard being had to the degree of inflammation, and its progressive amelioration. It may appear like a paradox, to restrict an individual, who is able to go about in pursuit of his avocations, to barley water, rice water, water gruel, &c.—yet in cases of chronic gastritis, there is nothing so effectually paves the way to successful treatment, as a few days confinement to this regimen: we say a few days, because in a majority of cases, it cannot be sustained longer with impunity, and to persist in it for a great length of time, except when there is considerable imflammation, would be quite as absurd, and certainly not less injurious, as to allow the individual an undue quantity of animal food under the same circumstances. The stomach, from the very nature of its office, must necessarily be exposed to that species of daily irritation, which is the inevitable consequence of the introduction of aliment into it; yet this irritation, within a certain range, is healthful and indispensible. It is only when it is provoked beyond this point, or when it falls below it, that disease takes place; and its actions may become pathological as well from defect as from excess of alimentation. Having, therefore, put the organ in training, if we may be allowed the expression, by subjecting it for a few days to a light farinaceous diet, a more generous aliment must be gradually allowed, passing from these to milk, and from milk to eggs, oysters, game, &c., until it is found that it acquires the faculty of digesting, without inconvenience, the more substantial articles of animal food, as mutton, beef, fish, &c. In severe cases, the barley water regimen, or something equivalent, must be continued for some days; but in proportion as improvement takes place, it may have a portion of milk boiled with it, to which a small quantity of sugar should be added, and the diet may be gradually made more substantial by adding stale bread, water crackers, rice, and with some individuals, fresh corn meal mush or corn grist, which should be well done, and always used with fresh milk or cream,

previously boiled, and a small quantity of salt. Tea and coffee should be generally avoided as an abomination, except black tea, which should be taken with a moderate quantity of sugar and milk. The pure cocoa is an excellent substitute, and generally agrees better with the dyspeptic stomach than any of the kindred articles. Chocolate, however, in the forms in which it is generally obtained, is such a compost of ground-nuts and hogs-lard, as to be very injurious to any but the stomach of a ploughman. When the digestive power of the stomach has been so far recovered, as to admit of a departure from the simple farinaceous fluid regimen, the breakfast may either consist of milk in the form, and with the adjuncts, already mentioned, or of cocoa, with dry toast, and in some cases the addition of a soft fresh egg and a little salt, but no butter. The dinner, like the breakfast, must be regulated by the circumstances of the case. If there be still much irritation of the organ, it must consist of the farinaceous articles, with milk. If not, it may consist of the soft part of a few oysters, of some of the most tender and digestible of the land birds, or, if a more substantial diet still be admissible, of the wing of a tender chicken, or some mutton or beef steaks,—a strict regard being constantly had to quantity. Dry toast, crackers, rice, or a dry mealy potato, will form good adjuncts, when a generous allowance of animal food is admissible; but soups, and most of the ordinary vegetables, must be scrupulously avoided. The best supper, when there are still evidences of irritation, will be a pot of gruel, or in slighter cases, a little rice and milk, with sugar. We have found oat meal, barley groats, and rice flour, when fresh, less liable to become acid on the stomach, than corn meal, and when boiled with equal parts of milk and water, to the consistence of gruel, they form a light and nourishing diet for the dyspeptic. Should they become acid, a little lime water, or carbonate of soda may be added. Where all these articles disagree, we have found nothing set so well on the stomach, as a preparation of parched corn. The corn after being slightly parched, not burnt, should be ground into flour. A little boiling water poured upon a few spoonsful of this, and suffered to stand a few minutes, forms a light and nourishing diet, which we have seen set comfortably on the stomach, when almost every thing else proved offensive. It is a preparation much used by the Indians of our country, and it

is well known that, with no other nourishment, they are enabled to endure the fatigues of the chase for days together, without any impairment of their bodily energies.

A proper attention must also be paid to drinks. We need scarcely remark, that in all cases, where there is much irritation, every thing in the slightest degree stimulating should be avoided. Pure water, toast water, barley water, &c. will under such circumstances, be the most proper drinks. Yet an error is too often committed by those who labor under diseases of the stomach, in taking too much fluid with their meals, or while digestion is going on. Fluids taken into the stomach under such circumstances, beyond a certain point, tend to impede the process of digestion, and prove highly detrimental. A certain quantity of liquid is certainly necessary to convert the solid aliment into a pulp, favorable to be acted upon by the stomach; yet it should be remembered, that this is generally furnished by the salivary glands, and the coats of the stomach itself, so that only a small quantity is necessary to be added in the way of drinks. Copious drafts of liquid taken during a repast, or while digestion is still going on, tend to dilute the gastric juice, and impair its solvent agency. Hence it will generally be found, that dyspeptics who limit themselves to a small quantity of fluid at such times, and introduce it into the stomach gradually, and at intervals, digest better, than those who load their stomachs with water or other liquids.

But while this should be adopted as a general rule, there are circumstances under which it will be advantageous to make a slight departure from it. Some individuals, with whom a moderate allowance of food is admissible, suffer much while digestion is going on, and especially about the time the process of chymification is nearly completed, from gastralgia, pyrosis, cramps of the stomach, flatulence, flying pains about the abdomen, thorax, &c. Under these circumstances we have adopted a plan recommended by Broussais, with manifest advantage. He remedies these difficulties by directing very small quantities of water, either simple or sweetened with sugar, to be taken at short intervals. In very delicate and debilitated subjects, he even proposes to administer it by the spoonful, often repeated, and although to those who are stronger he allows it in greater quantity, he subjoins that the amount given should never equal the chymous mass. He remarks, that in thus introducing into

the stomach a moderate quantity of soothing and refreshing fluid, about two and a half or three hours after digestion has commenced, the irritation of the organ is calmed, the spasms of the pylorus, and the pains of the cardia and the splenic extremity of the stomach are dissipated, and the chyme passes into the duodenum with infinitely less disturbance. He mentions the case of a physician, who suffered severely during this stage of digestion, and who, after submitting to antiphlogistic treatment, was completely relieved in the course of a fortnight, by adopting this simple expedient; and he subjoins, that by the same plan, hundreds of cases of gastritis are effectually cured.*

Although water constitutes, in a majority of cases, the most appropriate drink, it not unfrequently becomes necessary, when the disease has existed for a length of time, and when the nutritive, as well as the functional, acts of the stomach become much enfeebled, to promote the languishing physiological operations of the organ, not only by a more generous diet, but by drinks which are slightly stimulating. It may have the semblance of a paradox to recommend stimulation to an organ already inflamed, yet universal experience has shown, that not only in certain grades and conditions of chronic phlegmasiæ of the stomach, but likewise in similar states of the living solids generally, a treatment slightly stimulating is absolutely necessary. In ophthalmic inflammation, depletory remedies lose their effects after the lapse of some time, and stimulating collyria become necessary;—and the mucous membrane of the stomach, analogous in its properties of organization, is influenced by the same laws. The great difficulty is to decide, when this modification becomes necesssary, and if stimulants be resorted to before the proper period has arrived, or if they be employed in undue quantity, they will not fail to provoke additional irritation, and exasperate the sufferings of the individual. The same rule must be observed that has been prescribed for the regulation of the aliment. They must be employed at first in very small quantity, and only at dinner, and if benefit is realized, the quantity may be increased, as far as may be compatible with the state of the disease, and the necessities of the organization. A tea spoonful or two of good brandy well diluted with water, when not contraindicated by the degree of inflammation, will promote digestion. Beginning thus cautiously, when the stimulus is found to

*Cours de Pathologie et de Therapeutique generales, tome 2. p. 143.

agree well with the patient, the brandy may sometimes be exchanged for good sherry, madeira, or port, always avoiding that which is acid, and restricting the quantity to what is barely sufficient to maintain the physiological action of the organs. We have found good London porter agree remarkably well with many individuals, under such circumstances, and in some cases, where neither brandy nor wine could be taken. But whatever article be selected, it should not be taken until the conclusion of the meal, since if the individual sips it, as is often done, while he is eating, it will be apt to provoke a preternatural appetite, and lead him to take more food than the stomach can digest.

In order to reap the full benefits of this dietetic discipline, it must be persevered in without wavering or interruption. Nor is it less important to have a strict regard to time. The oft repeated assertion of Dr. Temple, that "the stomach of an invalid is like a school boy, always at mischief unless it be employed," is fraught with danger when applied to the dyspeptic. Every portion of food taken into the stomach, no matter how small, provokes more or less irritation, which continues until digestion is completed. If, therefore, the individual is in the habit of eating at short intervals, and between the regular periods of his meals, he taxes the stomach with additional labor, and submits it to more suffering than is necessary. If the dinner hour be two or three o'clock, nothing will be necessary between the hours of breakfast and this period: but if it be deferred until five, it may be necessary to take something light in the interval. This luncheon, however, should consist of some article that is easy of digestion, and should be small in quantity.

Medical treatment.—Under the head of medical treatment, the first remedy that suggests itself is the abstraction of blood.

General bleeding is seldom demanded, and but few patients who have been long labouring under chronic gastritis can bear the loss of much blood taken in this way. In those cases in which the inflammation verges on the acute form—where there is burning of the palms of the hands, a smart febrile exacerbation towards evening, with frequent chorded pulse, it may sometimes be useful to practise general bleeding, provided the individual be not already too much debilitated by the force of the disease, or the influence of previous treatment. A repetition of the operation will, however, be seldom needed, even under these

circumstances, and when the force of the disease requires that more blood should be abstracted, it will be better to do it by leeches or cups, than to reduce the recuperative powers of the system too low by the use of the lancet.

Local bleeding will be admissible in almost every stage and variety of chronic gastritis; and it frequently happens, that where the quantity of blood abstracted is properly apportioned to the energies of the system, the individual gains strength under a repetition of the operation. It is indeed one of the most effectual means of combatting this insidious malady, and aided by a properly regulated diet, and the agency of revulsive remedies, it seldom fails to display its powers in mitigating or removing the sufferings of the patient. But to obtain this effect, we must not be content to employ it once, or even a few times; the application of leeches and cups must be reiterated again and again, at short intervals, so as to establish and maintain a control over the local inflammation. The quantity of blood to be drawn at each period must be determined by the circumstances of the case, but need never be considerable, except where the whole stomach is affected, and the disease assumes a form of considerable intensity. In such cases, if there be indications of a febrile state of the system, and the individual be not already too much enfeebled, thirty, forty, or even fifty leeches may be applied over the epigastrium, or a proportionate quantity of blood may be drawn by cups. The effect will generally be, a manifest amelioration of the symptoms of the disease, which will be either temporary or permanent. In a few instances, where the affection is recent, a single prompt bleeding of this kind will either arrest its progress, or make such an impression upon it as to place it under the control of other remedies. Very often, however, the relief is only temporary, and does not endure beyond a day or two. When this is the case, the leeches and cups must be repeated; but it will seldom be necessary on a subsequent resort to them, to draw more than a few ounces of blood. Ten or fifteen leeches, or a proportionate number of cups, will generally suffice; or if the patient be already much debilitated, the number may be reduced to six or eight, which should be applied over the epigastrium, and if the blood does not flow freely from the leech bites, it may be promoted by the application of the cupping glasses, as directed by Broussais. In mild cases, where the inflammation is slight, or limited to a small

portion of the stomach, it will not be necessary to apply more than eight or ten leeches even at the first operation, and when the individual has been much enfeebled by the long continuance of the disease, or by previous active treatment, even this quantity of blood may be too large, while the abstraction of an ounce or two will produce a striking and happy effect. To insure the full and permanent benefit of the remedy, the practice must be followed out. These small abstractions of blood should be repeated twice or thrice a week, until by the conjoint agency of the depletion, and the light mucilaginous or farinaceous diet already adverted to, the force of the inflammation is subdued, the pain, flatulence, and acidity of the stomach overcome, and the stomach is put in a condition to receive and digest a more nutritious aliment. In feeble, nervous temperaments, the leeches should be generally preferred, as cups sometimes excite too much disturbance of the nervous system; but when this preternatural susceptibility does not exist, cups are occasionally more advantageous, because in addition to the benefits they confer by the abstraction of blood, they prove serviceable by the revulsion they create. But which ever is employed, it should be borne in mind, that it is not by the abstraction of a great quantity of blood that the disease is to be subdued, but by the frequent withdrawal of small quantities. The stomach is a focus of irritation, which is perpetually inviting an undue quantity of blood to its vessels, and if this disposition be not obviated, the mischief will be perpetuated as long as the irritation continues. This end must be gained by the withdrawal of all sources of irritation from the organ; by the gradual abstraction of a portion of the circulating fluids; by directing the tide of the circulation to some other point; and by the employment of such means as will be competent to soothe down the erethism of the organ, which, while it continues, makes it a kind of centre of fluxion. The first indication will be fulfilled by a proper regulation of diet; the second by cups and leeches; the third by revulsives; and the fourth by the proper use of narcotics. It is only, therefore, by the gradual and repeated abstraction of small quantities of the vital fluid, that the organization can be brought into a condition to realize the full benefit of the other remedies;—and it is necessary to take it away in small quantities, because the energies of the system are already so depressed, that they would succumb under the sudden loss of a considerable quantity of blood; and at short inter-

vals, because the influence of the irritation of the stomach tends incessantly to determine the fluids in that direction, and if it be not repeatedly withdrawn, such congestions will form, as will perpetuate the sufferings of the patient, and lead eventually to the development of incurable alterations of the structure of the organ.

We feel assured, from considerable observation and experience, that one half the difficulty that is encountered in the treatment of the chronic phlegmasiæ of the stomach, arises from the neglect of local blood-letting. There being in an immense number of cases, no evidences of febrile action, no pain or tenderness of the region of the stomach, in short, no prominent indications of inflammation, the pathological state is mistaken for one of debility, and the removal of it is attempted by tonics and stimulants. The enfeebled state of the constitutional energies, the emaciation, and the imperfect manner in which the function of the stomach is performed, tend still further to confirm this error; and while these conditions seem to contraindicate the abstraction of even the smallest quantity of blood, they are seized upon as evidences of the propriety of an opposite course, and it is only after pain, tenderness, vomiting, fever, and other unequivocal evidences of inflammation are provoked by the continuous irritation of the stomach, that the practitioner becomes apprized of the falsity of his diagnosis, and the incorrectness of his treatment. We will not pretend to say, that there are not cases of dyspepsia in which the local abstraction of blood is not necessary, or that it may not sometimes prove decidedly mischievous. Nor would we affirm that the majority of cases will be cured by this remedy, or that great injury may not be inflicted by abstracting blood too freely, or continuing to do so too long. The reverse is true in both cases. Yet as a general rule, the remedy used with proper discrimination, will be decidedly beneficial, and will frequently produce an instantaneous amelioration, where tonics, stimulants, purgatives, and specifics have totally failed. We lay it down as a rule to employ leeches or cups in all cases, except those which depend upon a mere neuropathic condition of the stomach, either consisting in a simple exalted nervous erethism unassociated with vascular turgescence, or a condition of pure debility, which is probably of rare occurrence. At least, the only additional exception we would admit, is, an extreme prostration of the pow-

ers of life, rendering it dangerous to deprive the individual of even the smallest quantity of the vital fluid. Under all other circumstances, we think blood may be drawn as preparatory and adjuvant to the other remedies, proper precaution being observed, not to abstract too much at one time, or to continue the practice beyond a proper point. We would adopt this practice even though we might not be able to draw more than an ounce of blood at the first bleeding; nor would we wait for pain or tenderness in the region of the stomach, to indicate its employment. Even in the feeble and the emaciated—those whose energies have been completely unstrung, we have seen it produce the most happy effects; and when not more than an ounce or two of blood could be drawn at first, we have repeatedly witnessed, under a prudent repetition of the remedy, the powers of the system rally, the flatulence and eructations disappear, the erratic pains subside, the strength of the patient improve, and at the expiration of a short time, his stomach either acquire the faculty of digesting, or his system become so far invigorated, as to admit of such a quantity of blood being drawn as to make a prompt impression upon the disease, and render little else necessary than a proper attention to diet. A few leeches or cups will often do more to allay acidity, flatulency and eructations, than all the antacids and carminatives that can be thrown into the stomach.

But while the local abstraction of blood is capable of doing this, we must repeat, that if employed without proper discrimination, or continued too long, it may occasion irreparable mischief. Even where it is beneficial at first, it ceases to be so after it has been repeated several times. Under such circumstances, therefore, after it has been pushed far enough to prepare the system for other remedies, it must be laid aside, or only employed when demanded by relapse, or a recurrence of the condition which called for it at first. When the duodenum is the part chiefly affected, if there be congestion of the liver associated with it, as is often the case, a few leeches may be advantageously applied about the verge of the anus, in addition to those which are applied over the affected organ. In this situation, they will deplete directly from the portal circulation, and thus act more immediately upon the liver.

Evacuants.—The constipated state of the bowels, which forms a prominent symptom in chronic gastro-duodenitis, has been very

generally considered as furnishing a strong indication for the use of purgatives. Such remedies, indeed, have long been popular in the treatment of the disease, and since the time of Hamilton especially, they have been employed almost to the extent of universal remedies. Such is the force of fashion, and such our disposition to settle down into a species of routine, for no better reason than that we see our contemporaries adopting such a course, that almost every physician has some favorite aperient pill or draught, which he employs in all cases of the kind under consideration, until by its frequent repetition, he almost cheats himself into the belief that he is in the possession of a panacea, and seldom takes the trouble to inquire for what object he employs it, or what are the effects it is capable of producing. Nor is this practice confined to the members of the profession alone:—while the physician reposes his confidence in blue pills, with some of the ordinary adjuncts,—as scammony, colocynth, aloes, &c., the common people too have their aperient pills, which they ply freely after every debauch, and chuckle significantly at the idea of cheating the doctor, while under a disastrous delusion, they are only paving the way to their own wretchedness. Hence we have Hooper's pills, Lady Webster's dinner pills, but above all the far famed hygiene or Morison's, of present notoriety, all of which, with numberless others of a similar character, are used with nearly the same frequency as the ordinary articles of diet.

The constipation of the bowels should certainly be counteracted, but we are of opinion, that purgative medicines, composed for the most part of articles of a highly irritating character, are not the most appropriate means of fulfilling the indication. It is true, their operation is often followed by an amelioration of the symptoms of the disease, but generally this relief is only temporary, and is followed by a renewal of the constipation, and a recurrence of all the unpleasant symptoms occasioned by it. A repetition of the purgative is therefore demanded, and the practice is thus pursued, until the torpor of the bowels becomes inveterate under the influence of the perpetual irritation to which they are exposed, and operations cannot be provoked, except by the most drastic articles that can be employed. The results of this kind of practice are very similar to those which Dr. Cullen represents to have been induced in his day, by the use of the Portland powder in the treatment of gout. He re-

marks, that he had known nine or ten persons who had taken this medicine for the term prescribed, which is two years, and although they remained free from any future attack of inflammatory gout, soon after finishing the course of their medicine, they became valetudinary in different shapes, and in every one of them, before a year had passed, some hydropic symptoms appeared, which gradually increasing, in less than two, or at most three years, proved fatal. Thus, in chronic gastro-duodenitis, we often find individuals continue for some time to experience relief from the use of the ordinary aperient pills, which are so much employed in such cases, but in the end, the reiterated irritation of the mucous membrane is too apt to give rise to thickening of its substance, ulceration, scirrhus, degeneration, permanent organic disease in the liver and spleen, ascites, and other formidable diseases, which sooner or later prove fatal. The constipation and the perversion of secretion, against which these means are more especially directed, are consequences of the chronic inflammation of the stomach and duodenum, together with the consecutive implication of the liver. This condition must necessarily be exasperated by the direct application of irritants to the affected organs, and although the mischief may be for sometime obviated, by the free secretions which are elicited, and the revulsive impressions which are produced, the effect in the end will generally be mischievous. Curtail the diet; confine the patient for a few days to bland, farinaceous, and mucilaginous articles, abstract blood from the epigastrium by means of cups and leeches, keep up a revulsive impression upon the surface, and throw copious warm water enemata into the bowels, and all the difficulties will be in a short time effectually surmounted. By adopting this course, it will soon be found that the secretions will be restored, the bowels will act spontaneously, the uneasy symptoms will vanish, and the supposed necessity for purgation will no longer exist. At first, it may be necessary to render the enemata somewhat more stimulating than simple warm water would be, because while the irritation of the stomach retains a considerable degree of intensity, it will concentrate upon that organ nearly the whole susceptibility of the bowel, and render it so insensible, that it cannot be excited by these simple injections. But in proportion as the affection of the stomach is subdued by the antiphlogistic treatment, the susceptibility of the whole canal

will become more equally diffused, and the bowel will either resume its function, or simple warm water, or some other bland fluid, will be found sufficient to make it throw off its contents. At the present day, the enemata apparatus is so much improved as to render these means much more effectual than they were under the former mode of administration, and far less inconvenient and repulsive, as the individual can administer them himself. They should be employed daily if necessary, and if hardened fæces have become lodged in the haustri of the colon, a gum elastic tube should be passed up the rectum, in order to conduct the fluid of the injection to a sufficient height, to produce a complete evacuation of these indurated masses, which sometimes excite inconceivable uneasiness and distress if not dislodged.

If the antiphlogistic treatment be instituted, and properly carried out, simple enemata, or at least those which are but slightly irritating, will generally be sufficient to excite sufficient action upon the bowels, and the necessity of resorting to purgatives will be obviated. Should it be requisite to administer internal medicines with the view of effecting this object, none but the mildest articles should be employed. A drachm or two of castor oil, a little calcined magnesia, or a few grains of rhubarb, will in most cases possess sufficient activity to produce the effect, and will not exasperate the irritation of the diseased organ, like the mercurials and drastics which are usually employed under such circumstances. Even these articles should not be administered, except when there is an urgent necessity, and a too frequent repetition of them should be carefully avoided.

It may appear to many strange, that we should object so strongly to the use of blue pill, after the extensive popularity which has been given to it by the authority of Abernethy, Wilson Phillip, and others. Our objections are founded upon an intimate knowledge of the mischievous consequences which follow its abuse. Nor do we stand alone in our opposition to its general employment. Dr. Stokes, whom we regard as a sound pathologist, and one of the best practitioners of the present day, holds the following language: "The old purgative and mercurial treatment of gastritis, I am happy to say, is rapidly declining; and British practitioners are now convinced, that they cannot cure every form of dyspepsia by the old mode of

treatment. I do not deny that many diseases of the digestive tube may be benefited by the mild use of mercury and laxatives, but I think I have every reasonable and scientific practitioner with me in condemning the unscientific routine practice, which was followed by those who took the writings of Abernethy and Hamilton for their guide."* Dr. Elliotson, likewise, remarks, that "had Mr. Abernethy lived a hundred years, and done good all the time, he would not have atoned for the mischief he has done in making people take blue pill. Half the people in England have been led to fancy that they cannot live without blue pill, which does no more good than any other purgative, but renders those who take it constantly susceptible to cold, and altogether must be very injurious."† To these authorities we may subjoin that of Broussais. He remarks, that those individuals who are treated with blue pill, "are the tributaries of the apothecary, and drag out a miserable existence. In winter they take pills, and if their means admit, visit watering places in summer. After eight, ten, or fifteen years, they are either destroyed by dropsy or consumption, or they become martyrs to gout. It is thus, that all the rich gastronomes of England live and perish."‡

We have cited these authorities in support of the validity of our objections, in order that they may have more weight, coming as they do from gentlemen who stand at the head of the profession in England and France; and with the object of screening ourselves against any charge of prejudice, which we might incur in censuring a practice, which in England and America especially, has until recently been almost universal. If it be inquired if blue pill and mercury in all its forms should be excluded from the treatment of the affections under consideration, we would reply, that there are circumstances under which they will sometimes be found useful, but that they may be very generally advantageously dispensed with. They should not be resorted to until after the chief intensity of the disease has been overcome by antiphlogistic treatment, and even then in very small doses. It very frequently happens, after a tissue

* London Medical and Surgical Journal, vol. v. p. 7, 1834.

† London Medical Gazette, vol. xii. p. 660, 1833.

‡ Cours de Pathologie et de Therapeutique Generales, tome ii. p. 150, Paris, 1833.

has been for some time affected with inflammation, and submitted to a certain extent to the influence of antiphlogistic treatment, that a kind of sluggishness of its functional and nutritive acts remains, which require to be slightly excited, in order to enable them to regain their healthful condition. The mucous membrane of the stomach and duodenum sometimes remains in this state, after the more prominent symptoms of chronic gastritis have been subdued, and it may be useful, under such circumstances, to administer a grain or two of blue pill, or hydrarg. cum creta, in order to restore the secretions of the tissue, and rouse up its physiological actions. The same condition not unfrequently exists in the liver, under the same circumstances, especially when the mucous membrane of the duodenum is affected; and when, after irritation has been sufficiently subdued, defective biliary secretion is indicated by clay-colored stools, small doses of mercurials will tend to restore healthy secretion. In either case, however, the dose should be very small, and should not be so often repeated as to provoke irritation. The more effectually to obviate this effect, it will often be proper to combine a minute portion of some narcotic; and fractional doses of ipecacuanha, long since highly commended by Daubenton, we have sometimes seen useful, when combined with blue mass or the hydrarg. cum creta.

Revulsives.—These are amongst the most important of the means employed in the treatment of chronic gastritis, and should never be neglected, where diet and other antiphlogistic means do not afford relief. Cups, to which allusion has been already made, owe part of their efficacy to the revulsive impression they make upon the surface; hence when they are not contra-indicated, on account of the irritation of the nervous system which they are apt to occasion, they furnish an admirable means of accomplishing the two-fold object of depletion and revulsion. Even where it is no longer necessary to draw blood, frequent dry cupping over the abdomen and spine has a very happy effect. We frequently direct the operation to be repeated daily, and to be continued for several weeks in succession. Large cups should be employed for the purpose, and as the individual, with a little practice, can perform the operation very well himself, when cups are not at hand, small sized tumblers may be very conveniently substituted. When they are to be applied, a small slip of paper, dipped in alcohol, and previously

ignited, should be thrown in to rarify the air, at the moment the glass is turned down upon the skin. The situation of the glasses should be changed frequently during each operation, and they may be applied successively over nearly the whole abdomen and back. But when they are applied in the latter situation, they will seldom make an impression of sufficient activity, unless scarifications be practised.

Blisters will be sometimes demanded when the disease is intense. But they should seldom be large, as the irritation they occasion is apt to disturb the nervous system. It will be better to employ a succession of small ones, the intervals between each being varied by the circumstances of the case. In most cases, they should be applied over the region of the stomach; but we have seen several cases, in which a succession of blisters to the inner part of the thighs, have produced a better effect than when they were placed over the stomach.

A far more efficacious method of exciting revulsion in the chronic affections of the stomach is, by pustulation with the tartar emetic ointment. Dr. Stokes has very properly remarked, that the ointment usually employed in such cases is too strong, as it is apt to bring out very large pustules, which in very delicate nervous temperaments, often excite so much pain and irritation, as to prove infinitely more injurious than beneficial. This accords fully with the results of our own observation, and in directing the remedy, we are cautious to make it barely strong enough to bring out an abundant crop of small pimples, and not the large umbilicated pustules which are excited, when a strong preparation is used. Dr. Stokes proposes, that instead of the ordinary quantity of tartar emetic, only about half a drachm, previously reduced to an impalpable powder, should be incorporated with an ounce of prepared lard, to which a drachm of mercurial ointment may be added. This we have found on trial to be sufficiently active, except when the skin is very thick and insensible. In such cases, we have found that the addition of ten, fifteen, or twenty drops of croton oil, which the same author recommends to be used separately as a counter-irritant in such cases, tends materially to improve the efficacy of the ointment. We have also thought, that the power of the tartar emetic ointment is improved by adding one or two drachms of strong aqua ammonia to the ounce. In all cases, the application should be made once or twice a day, until a full crop

of pimples is developed, when it should be suspended for a few days, and then resumed, in proportion as the pimples manifest a tendency to disappear. Care should be taken, however, never to excite so much pustulation as to occasion sympathetic fever, or induce painful disturbance of the nervous system. The ointment should be applied over the epigastric region, and the impression kept up for a sufficient length of time, to produce a protracted revulsive impression. Croton oil frictions have been employed in the treatment of many chronic diseases, and the author quoted above, remarks, that he has seen good effects from them in some cases of chronic gastritis,—at least, in chronic affections of the stomach, attended with severe local pain, nausea, and loss of appetite. Five or six drops, or more, should be applied to the epigastrium, and rubbed in with lint, or a piece of bladder. A full crop of pimples will generally be developed in the course of twenty-four or forty-eight hours. He subjoins, that in some instances, the oil seems to be absorbed, and excites catharsis, but that when it produces the counter-irritant effect, it seldom acts on the bowels—at least he had only seen one case in which it purged, and at the same time excited an eruption on the surface.*

The ointments of iodine produce an excellent counter-irritant effect in chronic gastritis. In employing them, the same rules must be observed which we have already suggested. The strength of the ointment should always be graduated by the susceptibility of the skin, but never pushed so far as to excite violent inflammation, acute pain, and sympathetic fever. In a majority of cases, we have found an ointment composed of hydroid. potass. ʒ i. iodine gr. xv.—simple ointment ʒ vi.—strong mercurial ointment ʒ ij.—sufficiently powerful. The quantity may, however, be increased or diminished, according to the effect produced.

Whatever means be resorted to for the purpose of producing the end proposed, a mere temporary application will not suffice. The impression must be kept up for some time, otherwise so soon as the revulsive effect is allowed to subside, the irritation of the stomach being only partially subdued, will continue to invite the circulating fluids to that organ, and in a short time, local congestions, and all the disturbance that existed before,

* *London Medical* and Surgical Journal, vol. v. p. 37, 1834.

will be reproduced. It will besides be useful, while these revulsive remedies are in the course of employment, to aid their effects by the frequent employment of the mustard foot-bath, the nitromuriatic acid bath, and the daily use of the flesh brush. The feet are generally cold in this disease, and the circulation in them languid. It will be necessary, therefore, to excite them by some local stimulant of the kind mentioned, and to keep them warm by artificial means. To excite the whole cutaneous surface, the flesh brush should be diligently employed, for at least fifteen minutes, once in twenty-four hours, unless the weakness of the individual, or the existence of too much irritation, should contraindicate its use. With most individuals, the tepid bath will be found useful, if employed about an hour before dinner; and to render its operation more efficacious, the skin should be freely excited after coming out of the bath, by frictions with the flesh brush, or a coarse towel.

After the objections we have made to the farrago of nostrums, tonics, specifics, &c., it will not be expected that we have much to propose in the way of internal remedies. There are, notwithstanding, several articles which, when administered internally, possess great value in the treatment of this disease. They are chiefly such as possess the faculty of subduing irritation; and the best of them are those which possess more or less narcotic power. We have already had occasion to remark, that in nearly all cases of the disease, there is more or less nervous erethism of the stomach, and frequently of the whole ganglionic and cerebro-spinal nervous systems. This is fully revealed by the symptoms we have detailed, and by the whole train of pathological phenomena. It is clear, therefore, that besides depletion, revulsion and diet, something more will be necessary to calm down this morbidly susceptible state of the nervous system, and to quiet the general irritation of which it is the source. For this purpose, we know nothing so effectual as the repeated and continuous employment of very minute doses of those narcotics, which in their modus operandi, produce least disturbance of the general system. It must be borne in mind, however, that the doses must be very minute. They should never be pushed to the extent of exciting the slightest degree of narcotism, or any appreciable unpleasant sensation. To obtain their good effects, their operation should be as it were

silent, if we may be allowed the expression, and merely carried far enough to soothe or obtund nervous susceptibility. They will be most useful when there is manifest pain, but their utility is not confined to such cases. There is a species of organic nervous erethism, which they will not be less effectual in subduing, and pain should never be waited for to indicate their employment. These remedies have long been administered in chronic diseases of the stomach, but generally they have been given in doses by far too large. Employed in this way, except for the relief of gastrodynia, cardialgia, or spasm of the stomach, they are decidedly injurious. They only prove useful in the common range of cases, when given in doses exceedingly small, so as to produce no sensible disturbance of either the circulatory or nervous systems.

Several articles of this class are useful, but the preparations of opium may be placed at the head.—The best of them is the acetate and sulphate of morphia, and the black drop, though we have employed the opium itself, in doses of the eighth or sixth of a grain, with decided advantage. To no one are we so much indebted as to Dr. Bardsley, for demonstrating the efficacy of the acetate of morphia in the treatment of this class of affections. He has furnished a tabular view of a great number of cases in which it was employed, and the results obtained in his practice were such, as to claim for the remedy a high share of confidence. We have employed it and the black drop for several years, and have often had the satisfaction to see them prove highly beneficial. We have generally commenced by giving about the sixteenth, or the twelfth, of a grain of the acetate or sulphate of morphia every two or three hours, or a proportionate quantity of the black drop. But in all cases, the antiphlogistic treatment prescribed above should be premised. In 1826 we were called upon to treat a very inveterate case of chronic gastritis, in a gentleman of delicate habit, who, after the application of cups three or four times over the epigastrium, and a confinement to a strictly regulated diet, was effectually relieved without any other internal medicine than a few grains of rhubarb occasionally, to keep the bowels open, and a sixth of a grain of opium, with a small quantity of ipecacuanha, four times a day. Dr. Stokes also speaks in very favorable terms of the acetate of morphia. He remarks, that he has used it with the most gratifying results, after leeching, regulating the diet, and paying proper

attention to the state of the bowels. He thinks it most serviceable when there is a copious secretion of acid from the stomach, when severe pain and acidity are the prominent symptoms. He directs the twelfth of a grain, made into a pill with crumb of bread, or conserve of roses, to be given at first twice a day, and gradually increased, until the patient takes from half a grain to a grain and a half in twenty-four hours.* Broussais suggests, that it will be better to use the remedy at first endermically; and it will sometimes be useful, when we have idiosyncrasy to contend with, to adopt this method, before we give it internally. He directs the fourth, or the half of a grain of opium, or the eighth of a grain of the acetate or the hydrochlorate of morphia, to be applied to a surface of the skin, of an inch or an inch and a half in diameter, previously denuded by a blister, or the ammoniacal pommade.

Nux vomica and its preparations, have long been held in high repute by the Germans in the treatment of various subacute and chronic affections of the mucous membrane of the alimentary canal. In a paper which we published in the American Journal of Medical Sciences for 1830, on the use of strychnine in paralysis, we remarked that we had found that article beneficial in the treatment of chronic irritation of the mucous membrane of the stomach and bowels, especially when the disease was attended with constipation. We have since that time used it more extensively in that class of affections, and in many instances where sufficient depletion and revulsion had preceded its employment, with a very happy effect. It has also been a good deal used by others within a few years, and a considerable mass of testimony has been collected in its favor. In a preceding number of this journal, we offered some observations relative to its use in dysentery and some other subacute inflammations of the mucous membrane, which amply prove its power in soothing irritation, and shew its adaptation to that class of cases which demand the employment of such remedies. In cases of chronic gastro-enteritis it has seemed to us to exercise a two-fold effect,—on the one hand, soothing irritation of the mucous membrane, and at the same time promoting the contraction of the muscular fibres of the canal.† Administered in doses of the twentieth or

* Op. cit. p. 9.

† The celebrated Schmidtmann remarks—"exempla cumulatim in præsonium egregiæ virtutis anticardialgicæ nucis vomicæ adferre possem." *Summa observat. med.* Tom. 3. p. 214. Berol. 1826.

the sixteenth of a grain three or four times a day, when there is increased sensitiveness of the nerves of the stomach, with acid eructations, flatulence, and flying pains about the abdomen, it sometimes quiets the irritation, corrects the morbid secretions, and diminishes the gaseous accumulations in the stomach and intestines. We have, indeed, seen it somewhere remarked, that in those copious insipid, or sweet eructations, denominated pyrosis, it is almost a specific. The alcoholic extract of nux vomica, administered in doses of one fourth or one sixth of a grain, is equally beneficial in some cases of chronic irritation of the mucous membrane of the stomach. Dr. A. T. Thomson recommends the acetate of strychnine as the most eligible form for the administration of the article. Either of the preparations may be given, either alone, or combined with some of the other narcotics, but the remedy should never be employed until the antiphlogistic treatment has been pushed to a sufficient extent.

With the same object, and under similar circumstances, the prussic acid, stramonium, hyoscyamus, conium, lactucarium, &c. may be often employed with great advantage. Dr. Elliotson commends highly the first of these articles, and we have employed it with much benefit in several cases. He regards it as one of the best remedies for soothing morbid irritability of the stomach, and recommends it to be given, at first, in doses of one minim, three times a day, taking care not to give it on an empty stomach. It may be gradually increased to two, three, or more minims, carefully watching its effects.* In some cases, where there was such an excessive morbid sensitiveness of the stomach, that the mildest articles of food and drink could not be taken without occasioning pain, we have seen the irritation and discomfort of the organ effectually subdued in a few days, by the prussic acid. Dr. Elliotson, however, thinks, that when the pain is of that kind denominated gastrodynia, stramonium is a more efficacious remedy. It may, indeed, be employed in all cases, where this class of remedies is indicated, and has this advantage, that it does not constipate the bowels. A fourth of a grain of the extract may be given four or five times a day, subject to the restrictions which have been already laid down. The extract of hyoscyamus in doses of half a grain, or a grain, is also *a valuable* remedy under the same circumstances; and conium

* *London* Medical Gazette, vol. xii. p. 664. 1833.

may also prove useful, but we have seldom seen it produce much benefit. So large a dose is generally necessary, that it is apt to offend the stomach, and do more harm than good. We have employed, with a good effect, a tincture of the leaves of the prunus laurocerasus, in some cases of a morbidly irritable state of the stomach following chronic gastritis. The tincture we used was prepared from the fresh leaves, and was administered in doses of twenty or thirty drops. The distilled water is doubtless a better preparation, but as the leaves cannot be easily procured in this country, it is seldom kept by our apothecaries. An emulsion of bitter almonds, of the strength of four drachms to eight ounces of water, may be employed for the same purpose. Half an ounce, or an ounce of this emulsion may be given at a dose, and repeated every three or four hours. We have also seen the volatile oil of chamomile, in doses of five or six drops, prove serviceable in allaying morbid irritability of the stomach, especially when existing under the form of gastrodynia or cardialgia.

As we are not treating of the various forms of dyspepsia which depend upon other causes than chronic inflammation of the stomach, we shall not enumerate a long list of tonics, which are for the most part only applicable to those forms of the disease. But, as previously suggested, there is a period even in chronic gastritis, in which they are demanded, and when used with proper judgment and discrimination, they not unfrequently prove highly useful. It must be constantly borne in mind, however, that the object for which they are employed, is to merely invigorate the physiological acts of the diseased tissue, and not to excite a strong impression. They must be given in very small doses, to be repeated as circumstances may require. We should always commence with the mildest, and only resort to those of more active powers after we have ascertained that they can be administered with safety. An infusion of cascarilla, which is pleasantly aromatic, generally agrees well with the stomach, and from it we may pass through the ordinary routine of vegetable bitters. When an article of decided powers is required, the sulphate of quinine should be preferred. But it ought not to be given in larger doses than a fourth or half a grain. Of the mineral tonics, we know of none so efficacious in this class of cases as the hydriodate of iron. Ten or twelve drops of the liquor, hydroid. ferri, may be given three or four *times a day.* Where a gastralgic condition exists, the prussiate

of iron, in doses of fifteen grains, is a valuable remedy; it may be advantageously associated with sulphate of quinine. A similar remark may be made of the oxide of zinc, which we have employed in five or ten grain doses, in combination with a grain of extract hyoscyamus. The subnitrate of bismuth has been more highly commended in stomach affections than any of these remedies; but while some have considered it almost in the light of a specific, others maintain that it is entirely inert, or, at best, that it possesses such feeble powers as to entitle it to but little confidence. Odier, of Geneva, who first introduced the remedy to notice, employed it in a great variety of chronic diseases, and reported very favorably of its virtues. It was afterwards commended by many practitioners in various morbid states of the stomach, but more especially, in gastrodynia, pyrosis, &c. It has been represented to possess the faculty of quieting the pain with great promptitude, and soothing down the nervous erethism of the stomach more effectually than can be done even by the ordinary anodynes. Confidence in its virtues has, notwithstanding, very much abated; yet there are many who still think it a valuable remedy. Dr. Stokes remarks, that he has seen more benefit from it than any other remedy, after proper antiphlogistic treatment has been instituted. Trousseau, who has recently made it the subject of extensive experiments, in the hospitals of the French metropolis, has arrived at conclusions, which if fairly deduced, would entitle it to be ranked amongst the most valuable of the remedies for chronic diseases. We greatly fear, however, that he has been deceived. We will not go so far as Ratier, as to affirm that it is inert; yet from what we have seen of its effects, we are constrained to confess, that we have not seen it more beneficial than the same quantity of prepared chalk. It may be given in doses of ten or fifteen grains, three or four times a day.

Amongst these remedies may be enumerated the extract of taraxicum, which certainly possesses some virtues in chronic affections of the stomach. Half a drachm of the fresh extract should be diffused in an ounce and a half of mint water, and taken as a draught, twice or thrice a day.

Galvanism will sometimes be useful in very protracted cases, after the irritation has been sufficiently subdued. The best *method of employing* it is by Mansford's plates, a description of *which will be found* in the first number of this Journal, p. 75.

But after all, the best tonic will be found in a gradual improvement of the diet, in proportion as the force of the disease is subdued, and the stomach regains its powers. If tonics and stimulants be employed before antiphlogistics have produced the proper effect, they, as well as a too generous diet, will be mischievous; and after the affection of the organ has been subdued, they will not often be necessary. The great difficulty is to decide, when the antiphlogistic treatment should be abandoned, and the invigorating plan substituted. Many errors are committed upon this point, and the frequent want of success in such cases, depends upon an exclusive adoption of the one or the other course.

It will not be necessary to insist upon the advantages of exercise, change of scene, mineral waters, amusement of the mind, &c. Volumes exist on these subjects, and we have nothing additional to offer. We would only remark, that the chief mischief of travel, and the use of mineral waters, is, that they are often enjoined, before the system has been properly prepared by antiphlogistic treatment.

ART. IV. *Observations on the treatment of Burns, with Yellow Wash,* (*Aqua Phagædenica.*) By F. B. E. HINTZE, M.D. of Baltimore.

BURNS and scalds are accidents of every day occurrence, and often give rise to the most painful results. Having found in the course of my experience, that the cold applications recommended by Sir James Earle, and the stimulating ointment of Kentish, as well as the oleaginous prescriptions commended by Mr. B. Bell and others, tended rather to retard than promote recovery, I was induced to adopt a different mode of practice in cases which I was subsequently called upon to treat. In this I was influenced by the result of my observations in the management of the chronic ulcers which succeed burns; for having been called upon to treat several chronic ulcers of this kind, I was induced, after using ineffectually the usual unctious applications, to apply yellow wash, powdered rhubarb and dry lint. This treatment had the same happy effect upon these ulcers that it is known to exercise upon those which arise from other

causes. I had besides been long convinced of the frequent inefficacy of salves and other unctuous applications to promote healthy granulations, and having found nothing so successful in diminishing morbid sensibility as the wash in question, I have been for some time in the habit of applying it in all cases of cuticular abrasion, and after the proper adjustment of the parts, to contused and lacerated wounds; the great benefit which I obtained from it in such cases induced me to employ it in recent burns.

The following are a few of the cases of this kind in which I have employed the yellow wash:

Case I. Miss Mary F——, residing in Market space, had scalded her foot about four weeks previous to her application to me, and had employed lime-water liniment, and Judkin's ointment. Ulcers superficial and much inflamed; directed her to wet the part with yellow wash, to sprinkle it with powdered rhubarb, and keep it covered with dry lint.

Next day, the dressings adhered to the surface ot the sore. I did not disturb them, but directed the lint to be wet sparingly, once a day, with the yellow wash.

4th day. The lint separated, when the ulcer was found to have cicatrized.

Cases II and III. Mrs. Elizabeth, wife of Mr. John A——, residing in Hillen, near Front-st. O. T., while heating some spirits of camphor in an open vessel, accidentally suffered it to catch fire, and had the flames communicated to her clothes. Her husband at work in his shirt sleeves in a shop attached to the house, was attracted by her shrieks, and in his effort to extinguish her clothes, had both his hands and arms burnt severely. Unctuous applications had been made to the wife before my arrival; but as nothing had as yet been done for Mr. A., I proposed to him the yellow wash, rhubarb and dry lint; which were accordingly applied. This was the first recent case in which I employed these remedies. The pain soon ceased, and in less than ten days he was enabled to resume the use of his hammer and anvil.

Mrs. A's peculiar condition and extensive injury, prevented me from insisting upon a change of the treatment which the *united voice* of her friends approved. The treatment of her *husband being* moreover rather experimental, if it had been *instituted in her* case against the approbation of her friends,

any untoward occurrence which might have taken place would have been ascribed to the unusual means employed.

Mrs. A. was in the eighth month of gestation. The skin, and in many places the cellular tissue, of both the lower extremities, the nates, pubis, groins, abdomen and thorax was almost wholly destroyed. Hence I contented myself with controlling irritation by internal means, leaving the local treatment to her female friends. But after the husband had been at work some days, and the usual unctuous applications had been ineffectually employed, the patient and her attendants became weary of the stationary condition of her injuries, and suggested the use of the means employed in Mr. A's case. Having assumed the treatment, I directed the parts to be covered with poultices of boiled starch at a moderate temperature, with the view of promoting the detachment of the numerous sloughs. As she had suffered much from exhausting irritation, cordial tonics and generous diet were prescribed. This treatment speedily brought her system into a favorable condition for the use of the local remedies. The yellow wash, powdered rhubarb and dry lint were applied, and in about four days the superficial excoriations disappeared. In thirteen days more the deepest ulcers cicatrized. Before her accouchment she was enabled to resume her domestice avotions, and at the full period, was delivered of a vigorous child.

Case IV. James, son of Mrs. C. residing in East Water street near Market space, aged 3 years, who had his breast, abdomen and thighs scalded, by the overturning of a large boiler, filled with boiling coffee, entirely recovered in twelve days under the use of the same dressings.

Case V. Joseph R. infant, brother-in-law of the writer, was scalded by the overturning of a coffee pot. In this case the right arm only suffered, but the whole cuticle was removed with the clothes. It was nevertheless completely cicatrized in five days.

Case VI. T. R. a workman at Messrs. Watchman & Bratt's foundry, while carrying a bucket of fused copper from the furnace to the mould, fell into a hole which had been carelessly covered. The hole being large enough to receive his body, the liquid metal was precipitated upon his head, breast and arms. The burn was nevertheless healed by the dressings mentioned above, in about ten days.

Cases VII and VIII. Mrs. E. R. and her daughter Elizabeth, residing at North Point, attempting to obtain fire by flashing a gun, the fire communicated to a horn containing about half a pound of gunpowder, by the explosion of which Mrs. R. had both her hands and fore-arms literally crisped, besides being severely contused by fragments of the horn. Her daughter's breast, face, and arms were equally injured. On my arrival (a distance of fifteen miles) I found, as is usual in such cases, the parts covered with oil, &c. These I promptly removed, and after extracting as many particles of the powder as possible, I directed for the removal of the rest the application of tepid starch poultices. Next day I prescribed the yellow wash, powdered rhubarb, and dry lint. As was to be anticipated, much sloughing took place, to promote the separation of which, such emollients were employed as I shall presently enumerate. After the detachment of the sloughs, the wash, &c. were resumed, and a cure of both cases was accomplished in about fourteen days. The only inconvenience that remained was a disposition to permanent flexion of the fingers, which was obviated by the use of an extending splint and roller.

I shall forbear from an enumeration of any additional cases, and conclude with a few general directions for the use of the means I have recommended. When called to a case of recent burn, I remove all the vesicles with scissors. I then apply the yellow wash with a soft feather, or a camel's hair pencil, over the whole surface, and dust the part with finely powdered Turkey rhubarb. Over this I apply soft patent lint cut into small slips to accommodate them to the part. This is the only local treatment necessary, and if there should be any indication for constitutional remedies, the means proper in such cases must be employed. Should additional vesicles make their appearance, they must be promptly removed, as the accumulation and detention of an undue quantity of fluid within them, tends to retard the healing process. Where the lint adheres, it should not be disturbed, but any pieces which may become loose may be separated with forceps or scissors. The part should again be wet with the wash, dusted with the powder as before, and covered with fresh lint. The adherent lint should also be moistened with the wash. This process should be repeated *at least* once or twice a day. Should a sense of tension *with more or less* thickening invade the part, which generally

indicate the incipient separation of a slough, this process should be promoted by emollient poultices, composed of boiled starch, slippery elm, or bread and milk. As soon as the slough has separated the former remedies are to be renewed. All ablutions with soap and water, &c. are inadmissible, as all oily and fatty applications tend to destroy granulations in their forming stage. If the purulent secretion should be too profuse, it may be gently removed with dry lint or soft old linen.

The wash which I employ in recent cases, is composed of one grain of corrosive sublimate to an ounce of lime water. In chronic ulcers, I use it of the strength of one and a fourth grains to the ounce.

Baltimore, December 29th, 1834.

ART. V. *Some account of an Idiosyncrasy, with remarks.* By JOHN B. McDOWELL, M.D., of Baltimore.

THOSE diseases which are familiarly designated by the term convulsions, present many features of a remarkable character, and such affections often assume forms well calculated to arrest the attention of the student of pathology. They are not unfrequently so menacing in their aspects, as to call for the utmost promptitude and skill of the physician; many of them, however, are only seemingly fearful, and readily succumb to the triumphs of our art. Recent views, with regard to the nervous system, have conduced in a high degree to the solution of the pathology of many affections hitherto veiled in obscurity, and we will not be deemed over-sanguine and visionary, when we express the anticipation that investigations yet untried will unravel, in beautiful simplicity, the operations of those parts of the human organism which are not now within the grasp of our ken.

We are about to give a brief account of a most singular constitutional peculiarity, with reference to the operation of venesection. We have personal knowledge of the case, and have painfully witnessed the development of the phenomena in the individual, during several operations of venesection. Sometimes the insignia of the affection are manifested very soon after the ligature is adjusted, preliminary to bleeding, and occasionally not until the operation is over.

When this patient is bled in the arm, the idiosyncrasy evinces

itself in a very few seconds after the adjustment of the bandage; when in the foot, this is not the case. The last time that bleeding was instituted in this patient, the operation was done in the foot, and the train of features characterizing the idiosyncrasy did not appear until venesection had been gone through with, when, however, the phenomena were evolved in a distressing degree. Spasms supervened, or they might rather be denominated tonic convulsions, as the contractions continued for a considerable length of time, and no alternate cessations of the spastic rigidity occurred. The development of the peculiarities commences ordinarily with a tingling sensation in the tips of the fingers, which sensation speedily travels up the arms, until they experience that feeling which we describe when we say the arm is asleep; this numbness of the superior extremities is soon succeeded by an absence of sensation in those parts; the inferior limbs are quickly sharers of the same state of things, the abdominal muscles are next involved, and lastly the muscles of the face; the patient meanwhile suffers no acute pain, there is no cerebral perturbation, indeed the sensorium commune is unaffected, with the exception of a false perception, which is produced while the symptoms are being dissipated, and when the patient begins to experience relief. There is an idea of a double thumb, one thumb upon the dorsum of the other, and powerfully compressed, as it were in a vice. We have called this a false perception, we ought rather perhaps to have named it a wrong sensation, not an illusory sensation, for the mind of the patient is not even momentarily imposed upon by it. The contractions, while their violence lasts, obtund all feeling in the parts which are the intimate seats of the spastic rigidity, the superior extremities remain sore for days after the distressing symptoms have gone off, and the tenderness is so definitely located, as to enable the patient to refer it essentially to the flexors.

The short detail which we have given, constitutes an accurate picture of what happens to this patient after every venesection. As the symptoms were so much longer than usual, in showing themselves, after the foot venesection, we flattered ourselves with the prospect of an escape, but not many moments elapsed, ere the accustomed premonition, the tingling sensation *at the extremities* of the fingers, announced the approach of the *unwelcome and* agonizing phenomena. How shall we venture

to explain our case? It might seem that the symptoms which we have expressed can be explained upon the principle of a sudden interruption to the transit of nervous influence, or nervous fluid. Undue pressure upon the nerves of the part embraced by the ligature, is probably the proximate cause; the functions of those nerves are temporarily impaired, this lesion of function is transmitted to the great encephalic centre, and, by a reflex excitation, is radiated to the general nervous system, and the muscular system is thereby secondarily thrown into the disarray above described. This appears to us the most satisfactory solution of the physiological problem in question, which we are able to project.

We are not unwilling to admit that there are difficulties in the way of this explanation; for instance, pressure is made upon the brachial nerves of hundreds and thousands of individuals in whom occur none of the phenomena peculiar to the case which we have described.

But organization is infinitely diversified, and like agents, do not invariably induce like conditions of things when applied to all constitutions.

We know a lady who can at will produce symptoms of catarrh by simply smelling a rose. If she applies the flower a few times within the sphere of her olfactories, she inevitably contracts, what we call in homely phrase, a cold in the head, and suffers for some time "in aromatic pain," much incommoded by the odorous exhalations of a flower—the favorite of so many, and whose fragrance is so alluring to most of us.

A peculiarly constituted nervous system doubtless gives rise, in the case just mentioned, to the anomalous impressions made by the perfume of a rose, and a singularly modified nervous arrangement as probably renders the patient, whose idiosyncrasy with regard to venesection we have detailed, alive to the remarkable sensations produced, upon the application of the bandage, prior to venesection, sometimes prior to it, sometimes consequent upon it, being manifested differently as to time, owing, in all probability, to the different grades of nervous impressibility at different times.

Mental apprehension, as we have already said, has nothing to do with the case, as the operation of venesection is one not by any means dreaded by the patient. The first disagreeable feeling recognized by him is a purely physical one, the peculiar sensa-

tion on the ends of the fingers. We submit the above case, with our brief and imperfect remarks upon it, to the consideration of the profession, hoping that other gentlemen, if they have met with similar cases, will report them, and accompany their reports with a better explanation than we have been able to give.

Baltimore, January 3d, 1835.

ART. VI. *Report of some Anatomical Anomalies.* By WM. N. BAKER, M.D. Lecturer on Anatomy and Surgery, Balt.

IN the course of the dissections prosecuted at my anatomical rooms during the present winter, we met with several anomalies somewhat extraordinary, in the muscular system. Upon removing the external oblique muscle, a beautiful and well defined muscle, of a riband shape, and much resembling the sterno-hyoideus, was seen taking its origin from the tip of the eleventh rib, and stretching downwards and forwards, in a direction less oblique than that of the external oblique, to a fleshy insertion, on the crest of the ilium, about an inch and a half behind the anterior superior spinous process.

This anomalous muscle had a distinct aponeurotic sheath, which, with the peculiar direction of its fibres, puts to flight the idea, that it was the creation of the dissector's knife. Upon the opposite side, this muscle started from the same origin, but its fibres were lost just before it reached its insertion, in the tendinous expansion of the external oblique, destined to the anterior superior spine and the commencement of Poupart's ligament. A singular fatality seems to hang over anomalies. It has, no doubt, been remarked by all dissectors, that the same anomaly is often observed in quick succession. So it happened in this instance, and this musculus additamentum to the external oblique, which I have neither seen nor heard of before, was found in the very next subject brought into the rooms. It was not, however, so well defined in this as in the previous instance.

We found, also, in another subject, about the same time, instead of a "biceps flexor cubiti," a "quadriceps flexor." It had, beside the usual heads from the coracoid process and the superior margin of the glenoid cavity, an additional head from the coracoid process, which left the biceps in the superior third of

the arm, to be inserted alongside of the coraco-brachialis; and just below this point, another head took its origin by the side of the brachialis internus, which completely losing itself in the biceps—the whole went down to its usual insertion in the brachial aponeurosis and the tubercle of the radius.

In another subject which came into the rooms, the gall-bladder was absent. From the puckered appearance of the liver surrounding this point, I imagine it was destroyed by an abscess. The depression in the liver looked like a cicatrix. As soon as I can procure a history of this man, I will communicate it for the Journal. He was loaded with fat in every part.

Presuming that a description of these singular evidences of nature's waywardness, might be interesting to others pursuing the science of anatomy, I have communicated it for publication.

Baltimore, January 21st, 1835.

ART. VII. *Case of Pilous transformation of the ovarium.*

OUR young friend, Mr. Ross Pierce, presented us, a few days since, a specimen of diseased ovarium, obtained from the body of a female which he was engaged in dissecting. The tumor was somewhat oval in shape, and about the size of a common lemon. The proper fibrous cyst of the ovarium was considerably thickened, and presented the appearance of a kind of cyst or capsule, which was completely filled by a peculiar grayish colored matter of the consistence of very thick pap. This morbid product occupied the whole tumor, and imparted an unctuous or saponacious feel to the finger. Disseminated through it, there were numerous stout black hairs, dispersed without any regularity, and not implanted upon the walls of the capsule.

These singular pathological transformations in the ovaria are of frequent occurrence, and we have already had occasion, in the third number of this Journal, to make some observations on the development of bones and teeth within these organs.

EDITOR.

SELECTED PAPERS.

Lecture on the Pathology of Fevers.—Idiopethic or Essential.—Sympathetic or Symptomatic. By William Stokes, M.D.

Gentlemen:—There is no disease about which so much has been written as fever, or one concerning which there is such a diversity of opinions. The graphic and natural description of this class of diseases given by Hippocrates has, in no instance, been overturned by subsequent writers. He was an accurate observer of nature, while his successors were engaged in a fruitless attempt to discover the proximate cause of fever; and though various theories were advanced, there was no more light thrown upon the subject by Cullen and Brown, than by the father of our art. All failed, because they invariably reversed the Baconian mode of investigation; they did not collect, observe, and arrange facts; but they fabricated theories, and endeavoured to make the phenomena of diseases accord with them. Hence all their disciples were in truth more ignorant of the nature of fever than those of Hippocrates, who lived more than 2,000 years before them. All the moderns failed because they attempted to discover first causes, which in all probability will ever remain beyond the cognizance of human intelligence.

Cullen supposed fever was caused by spasm of the extreme vessels, and his opponent Brown, by asthenia of the whole body, but neither explained the real cause of the disease.

A new era led pathologists to observe the phenomena and examine the morbid changes produced by fever, and the results have been the most successful. The French pathologists were the first to pursue this method, which they had previously employed in other diseases, and though they have not discovered the proximate cause, they have illumined the minds of the profession by contrasting the symptoms and morbid changes resulting from fever.

They overturned the general opinion on the nature of fever, by the following conclusions First, That fever without local disease is of very rare occurrence. Second, That fever is generally complicated with local diseases, and rarely exists without it. Third, That every system and organ of the body may be, and frequently is, diseased during fever, and that in the vast majority of fatal cases, death is caused by inflammation of one or several organs.

Now, the theorists define fever to be a general disease of the body, without any local affections, as you will find in Cullen's definition; but this is now considered the exception to the rule. The truth is, that we very rarely see fever without some local inflammation, though I grant there are some rare examples. We can now understand the immense variety of symptoms of fever which depend on the number or site of local inflammations.

It is but justice to observe, that the description of fever given by Dr. Fordyce is extremely comprehensive and correct, though not founded on the basis of morbid anatomy. His words are these:—"Fever is a disease which affects the whole system, it affects the head, trunk, and extremities, the circulation, absorption, and the nervous system is also affected by it; it affects the skin, fibre, muscles, membranes, in fact it affects the body and mind, and is therefore a disease of the whole system in the fullest sense of the word. It does not however," says he, "affect the various parts of the system uniformly and equally, but on the contrary sometimes one part is more affected than another." Nothing could be more accurate than this description, as it admits that the whole system is disordered in fever, but that one of the organs may be more affected than the other. We have for example, brain, nervous, bilious, gastric, catarrhal, rheumatic, in other words there is fever with diseases of the brain or nerves, liver, lungs, bowels, joints, &c. When we are speaking of these fevers, we mean such diseases as Dr. Fordyce defines, in which some particular organ or system is more affected than the rest. This must always be the case on account of predisposition; one person is predisposed to disease of the brain, another of the chest, bowels, &c., so that if you go into the fever wards of an hospital, you will find one patient whose brain is chiefly affected, another whose lungs, liver, bowels, &c.; in fact you will rarely or ever see two patients similarly affected, unless in the very rare examples of idiopathic fever.

We know too that similar exciting causes will produce different forms of fever in different individuals. Indeed nothing is more common than to find the same lesion causing synoncha in one patient and typhus in another. This leads to the conclusion that Cullen's classification of fevers into synoncha, synonchus, and typhus, has no foundation in nature. The symptoms of each of these pass into the other; we find synoncha to-day, synonchus to-morrow, and typhus the following day. This dogmatism has been the destruction of thousands of our fellow-beings. According to modern pathology there are two classes of fevers: those which are primary, idiopathic, or essential, in which the whole system, both fluids and solids, are affected; this class is very generally succeeded during their course by local inflammation. Secondly, Symptomatic fevers, which are preceded by a local inflammation. I shall give you an example of each class.

A person is exposed to the contagion of typhus; he complains of nausea, rigors, bad digestion, weakness, and lowness of spirits; his skin becomes hot, his pulse frequent, and all the symptoms of fever set in. As the disease advances, he is seized with one or more inflammations. Another man is exposed to cold, or receives an injury on the chest or abdomen; he is seized with inflammation of the chest or bowels, and this is succeeded by fever. In the first case, if the local inflammation is removed, the fever continues its course; but in the second, when the local disease is removed the fever ceases.

I intend to direct your attention to-day to the first class, and to examine that morbid state of the system in which local disease appears during the fever; that is, those cases in which local inflammation supervenes on fever.

It is now ascertained beyond doubt that the majority of persons die of fever in consequence of some local inflammation of the brain, the lungs, or digestive organs. These you know are sufficient to destroy life as idiopathic diseases, if there was no fever at all. Another fundamental principle is, that primary fevers may terminate spontaneously, though we cannot account for this fact. Thus, a patient will have his three fits in ague, but when the last is over he is free from his disease for one, two, or three days. The eruptive fevers, as small-pox, measles, and scarlatina have different stages, and terminate in most cases spontaneously. Continued fevers end in this manner on certain days.

These facts lead us to conclude that we have first to detect, treat, and remove the local inflammation; and secondly, that as the disease may terminate spontaneously, we should support the strength, to prevent exhaustion in a protracted disease, and preserve the chance of a spontaneous and critical termination. These indications, though apparently opposite, are not so in reality. They vary according to circumstances—the seat or violence of local disease—the stage or duration of the attack; the age, sex, and constitution of the individual will guide you in the use of one plan or the other. Now gentlemen, the disciples of Brown considered fever a disease of debility in all its course, and exhibited stimulants freely; but they did not know that neglected local inflammation could produce and continue debility. The followers of Broussais, on the contrary, consider every fever symptomatic of inflammation, and think depletion the grand remedy. Both are wrong, and the truth lies between them.

We must combat local inflammation whenever it exists, but so soon as it is subdued, we must support the strength of the patient. The Broussaists contend, however, that there is no essential fever, all are symptomatic, and if we remove the local inflammation, we effect a cure. This doctrine is fallacious, and may be easily disproved.

*The ex*periments of MM. Gaspard and Magendie prove that the phe-

nomena of typhus, and the consequent local inflammations, may be induced in animals by injecting putrid substances into their veins, or applying them to wounds. It would be absurd to say, in these instances, that the local inflammations and ulcerations of the intestines had existed before the experiments, as the animals were previously in health. We cannot arrive at any other conclusion, but that the putrid substances were the cause of the fever and morbid appearances. We observe the same thing in exanthematous diseases. A child is exposed to the contagion of small-pox, measles, or scarlatina—suppose the first. In a few days it is seized with fever, and then an eruption succeeds. In this example you observe that the local disease was consequent to the fever. It would be as correct to argue that the pustules were the cause of the fever in this case, or that the ulceration of the bowels was the cause in the other: the eruption succeeded the fever, and so do the inflammations in typhus. The preceding facts show that the introduction of putrid matter into the body of an animal will produce fever, inflammation, and ulceration of the mucous membrane of the bowels: that the eruption is secondary in small-pox, and succeeds the introduction of contagion, and it is, therefore, equally evident that local inflammation in the head, chest, or abdomen may arise during the progress of fever. We hold, then, that local lesions may succeed fever.

Now, were typhus symptomatic of local lesion, it should follow that there would be a constant relation between the symptoms and the morbid appearances; but this is by no means the case. We should have such a relation as subsists between the fever of pneumonia, and the necroscopic appearances. Now, two patients may have nearly the same symptoms in typhus, but on dissection there will be found inflammation of the intestines in one, and no morbid appearances in the other. Here then is an uniformity of symptoms and morbid appearances. We also observe several patients whose symptoms are dissimilar, but whose morbid appearances are the same. In fine, if fever depends on local inflammation, it could be always cured by removing the cause. But this is not invariably the case, though it may sometimes happen. Now, if it be granted that local lesions are secondary, then it follows, that by removing them we cure the fever. Such are the arguments against the doctrine that all fevers are symptomatic of local inflammation, and I think they are in accordance with modern pathology. Nevertheless, the occurrence of local inflammations in fever forms the rule, and their absence the exception. They cause death in a great majority of cases, and in two ways. First, as in the case of idiopathic inflammation. A patient laboring under fever, who has inflammation of the lungs or bowels, may be as readily destroyed as if either inflammation was idiopathic. They may also destroy life by preventing the efforts of nature towards a cure. I have already informed you that there is a strong ten-

dency in fever to cease spontaneously on a certain day; but this is prevented by the existence of local inflammation. There is another circumstance worthy of careful consideration: it is this, that idiopathic inflammations, as enteritis, pneumonia, &c., re-act on the system; so do the symptomatic also. In almost all cases of fever, there are essential and sympathetic symptoms: the first, arising from the primary causes; the second, from the local inflammations which succeed it. This reaction of local disease prevents the critical termination of fever. I shall give you an illustration. In ague there is seldom any local disease at first, and the complaint is easily relieved. But when it continues for a long time, there is a great tendency to local inflammation or congestion, and the spontaneous or critical termination is prevented. These facts are highly important in the treatment of fever. They enable us to form correct indications of treatment. They direct us to examine the condition of the viscera, and if we discover local inflammation, to remove it. When we accomplish this, the fever ceases. We prevent the direct danger of death, and we remove the impediment to the critical termination of the fever. We give nature assistance to effect her object. Our treatment also prevents the occurrence of new local lesions.

Now, the disciples of Broussais fall into an error when they maintain that all fevers are symptomatic of local disease, and that by removing this, the fever ceases. The explanation of the *ratio medendi* I have just given, and the arguments already adduced disprove this doctrine. The preceding views on the pathology of fever are deduced from the most careful and accurate deduction, arrived at after an extensive observation on the phenomena and morbid appearances. They confirm the long received opinion, that fever, in its commencement, cannot be referred to any particular organ, that it presents certain phenomena varying as to the cause, localization, effects, duration, &c. The humoralists and solidists are equally wrong; both fluids and solids are diseased. We learn this important lesson, that fever may excite disease in all parts of the body, and will require different modes of treatment. The man who would employ the lancet, leeches, &c., or he who would employ stimulants or diaphoretics exclusively in every case, knows nothing of fever, and is a most dangerous practitioner. He is a child in knowledge.

REVIEWS.

Admonere voluimus, non mordere.——
Sunt bona; sunt quædam mediocria, sunt mala plura.

Clinical Lectures in the Manchester Royal Infirmary. By EDWARD CARBUTT, M.D. Nullius addictus jurare in verba magistri. HOR.— Lond. 1834, 8vo. p.p. 407.

THIS is incontestably the very worst production to which the modern rage for publishing lectures has given birth. We cannot, indeed, divine any cause for its appearance, except the gratification of the author's self-complacency, which seems to be unbounded. Notwithstanding his motto, he obviously wishes to have it considered, that he sails under the banner of Broussais; yet his remarks are precisely of such a character as to do the cause much harm. Gastro-enteritis is with him every thing, and every thing is gastro-enteritis. This, indeed, appears to be about the limit of his powers. He is neither physiologist nor pathologist; and almost every page contains some puerility or inanity, which does violence to the feelings of the reader.

To prove that this severity of criticism is not misapplied, we shall give, in the author's own words, some of his physiological, pathological, and other doctrines.

The following is his notion of phthisis pulmonalis:—

"Gastro-enteritis accompanies, or fatally terminates some diseases, as is seen in patients who die of phthisis, who are almost always carried off by a colliquative diarrhœa,* and who, upon being examined after death, are found to have had the mucous membrane of the alimentary canal inflamed and ulcerated. I am inclined to think that in these cases, the gastro-enteritis is the primary disease, and that it gives rise to the phthisis somewhat in this manner. You know that gastro-enteritis is a very insidious, obscure, and lurking disease: well, we will suppose a patient with delicate and irritable lungs to labor under an unsuspected gastro-enteritis for several months; this produces cough, in the manner explained, at page 15." (We shall refer to this presently.) "This cough irritates the lungs, produces increased expectoration, inflammation, tubercles, and abscesses; in short, phthisis. This disease attracts the attention, the gastro-enteritis is quite overlooked until the colliquative diarrhea comes on, and even then the patient is said to have died of phthisis with diar-

* The author has his own mode of spelling various technical terms. Diarrhœa is generally written by him Diarrhea, or Diarrhæa, rarely, if ever, correctly:—fæces is always feces; dyspnœa, dyspnea, &c. &c.

rhea, the existence of gastro-enteritis being never suspected from the beginning to the end."—p. 25.

But the reader will be anxious to learn how the gastro-enteritis produces cough:—

"The cause of the cough, which I have mentioned, is, no doubt, the irritation of the extremities of the eighth pair of nerves, which supplies the stomach as well as the lungs:—*the which* irritation being conveyed to the brain, *the brain makes a kind of mistake*, and, receiving the same impression as if the irritation came from the lungs, uses an instinctive effort to remove the cause of irritation from the lungs by exciting the act of coughing."—p. 15.

So that all the phenomena of phthisis are produced by "a kind of mistake of the brain;" for it is the cough—be it observed—which irritates the lungs, and developes all the symptoms of phthisis! We agree with the author, that this is "a kind of mistake" of the brain, but not, we think, of the brain of the patient.

Again,—"You must have observed, or at least you have been told, that inflammation of one extremity of any canal in the human body excites either *inflammation*, or *irritation*, or *violent action*, or, at any rate, *increased action*, at the other extremity."—p. 85.

Without attempting to comprehend the precise pathological difference between the various terms, which we have italicized, we may merely observe, that we fully calculated after the law had been so categorically laid down, that Dr. CARBUTT would have given us some examples in confirmation of it:—such, for example, as that if "inflammation," or "irritation," or "violent action," or "increased action," occurred in the mucous membrane of the nose or mouth, it would be necessary to scratch or to apply our remedies at the nether extremity, and conversely: but instead of these, he gives us cases in which the cause of irritation was *not* seated at one extremity of a mucous membrane, and which are, consequently, in no wise illustrative of his position.

"Thus," says he, "snuff taken by a person not accustomed to it excites a flow of tears; meat in the mouth, or even the fumes of tobacco taken into the mouth, excites a flow of saliva,"—"the presence of worms in the intestines generally causes an intolerable itching at the nose,"—"if you irritate the pharynx and fauces, by placing the finger at the back of the mouth, you will produce vomiting: the *act of vomiting itself will frequently bring on an immediate evacuation from the rectum.*" (Can the author intend this last as an example in proof of his position?) &c. &c.

We presume, that what Dr. Carbutt meant to convey, was—that an irritation may exist in some part of a mucous membrane; that such irritation may not be indicated by any signs in the part irritated, and yet that it may be felt at the extremity of the membrane, and especially where *it commingles* with the skin. This is the only position that can be maintained, and charity would induce us to presume, that the author meant no

more. It must, however, in candor be stated, that our presumption is founded rather on charity than on evidence.

The author's mode of accounting for the production of what he considers contagious gastro-enteritis:—

"If you ask me, how could the contagious matter produce inflammation of the stomach and duodenum, I answer, that it, in all probability, mixed with the saliva in his mouth and was swallowed: in the same manner as *we know* that the contagion of smallpox, taken without inoculation, produces inflammation of the stomach, the usual premonitory symptom of smallpox."—p. 90.

From this it would appear, that, in the author's opinion, we *know* that contagious—and we presume other varieties of miasmata—produce their action immediately on the stomach and intestines, by being swallowed with the saliva,—which is neither demonstrated nor probable. It is far more consistent with facts and arguments to infer, that the miasmata are taken into the air passages with the air of inspiration, and that gastro-enteritis, when it exists, is an *indirect* consequence of their reception into the system.

The following fact, mentioned by Dr. Carbutt, is analogous to many met with in this and other countries. It strikingly shews how little we know of the terrestrial conditions, that generate the malaria, which produces intermittent and other diseases.

"I have to remark to you, that in the memory of the oldest medical practitioner living, and as far back as tradition can reach, there never was an ague caught in Manchester, nor within a considerable number of miles of it. This fact is rather remarkable, as you know we lie upon four rivers, and one or two considerable brooks, besides being surrounded and traversed by canals innumerable. But, do we never see the ague then in Manchester? O, yes; we see plenty of it. The poor Irish, who go in the autumn of the year to assist at the harvest in Holderness, Lincolnshire, Cambridgeshire, Essex, and other places, come, many of them, to winter in Manchester, and the first east wind that blows in February or March, brings out the first paroxysm of that ague which they had caught in the autumn, but which had lain undeveloped and unsuspected in the system until aroused by such weather as we generally have in February and March."—p. 193.

The action of cinchona in arresting an intermittent is original with Dr. CARBUTT, and we wish to record the discovery in the pages of this Journal, in order to prevent any future caviling as to priority.

"You know, gentlemen, that *the specific* (?) for the ague is the cinchona bark, or the sulphate of quinine. They act by producing a glow of *heat* in the system, which counteracts the periodic *cold*, which is the precursor of a regular fit of which the cold is the first stage, and which cold stage is followed by a hot stage and a sweating stage."

We think we are justified in awarding the palm of discovery to Dr. Carbutt, unless, indeed, the members of a bold, aspiring and self-sufficient band of empirics, now gulling numbers of the unreflecting inhabitants of the United States, should claim the honor for their great founder.

The author's explanation of the pathology of chorea is not less unique than the mode in which he explains the production of cough by a gastro-enteritis.

"With regard to the seat and nature of chorea, that is to say, its proximate cause, much has been said and written, with which I do not intend to trouble you; but I will lay before you my own ideas on the subject. The commencement of chorea I believe to be an irritation produced in the intestines, either by the presence of accumulated feces, or by the presence of worms. This irritation is conveyed to the brain, and produces uneasiness there. The brain makes an instinctive effort to get rid of this uneasiness; but, having no power over the involuntary muscles of the intestines, it excites disorderly motions in the only muscles over which it has power, the voluntary."—p. 229.

Under the head of Painter's Colic we are told, that the *remote cause* is the taking of the "oxydes or salts of lead" into the system. Now we, in our ignorance, had always regarded lead as the *immediate, exciting* or *occasional cause*. Dr. Carbutt's whole explanation of the pathology of this affection is, we think, eminently faulty. Instead of referring the action of the metal to the nervous system, as in other cases of paralysis, he ascribes the phenomena to a direct paralysis of the muscular fibres of the alimentary canal, some of which, he asserts, are paralyzed, but not all.

"There is thus an impediment to the complete peristaltic action of the canal, and a remora in the passage of the feces. Accumulation, therefore, takes place, which by its stimulus produces spasms in those muscular fibres, which are not completely paralyzed, also in some of the fibres, which are in some degree paralyzed, and likewise in the muscles which form the parieties of the abdomen."—p. 237,

The author's opinions on dropsy appear to be chiefly based on the experiments of Magendie on venous absorption. He is a believer, with that physiologist, in the exclusive agency of the veins in the function,—a view, which we consider to be untenable. We do not, indeed, see how all the phenomena of absorption can be explained, without invoking the action of the lymphatics also. Dr. Carbutt's remarks on the pathology of hydropic affections are not at all more profound than those on other morbid conditions. In treating of the dark stools, that occurred in a case of "passive dropsy," as they often do in other maladies, he unhesitatingly ascribes the color to the secretion from the liver; and suggests that the nature of the action of the liver, which causes the fæces to be black, is some morbid change, which produces a greater secretion of the carbon of the blood than is natural,—a supposition founded altogether, we presume, on the fact that charcoal—*not carbon*—is black.

The following explanation of the mode in which "dropsy of the belly" may produce hydrops pericardii and hydrothorax almost equals Matthews's description of the action of a steam engine:—

"*The belly being* full of fluid, the diaphragm is pushed up, or not allowed to *descend to its natural* point; the heart, therefore, has not room to expand and

contract to its proper degree. The coronary vein cannot return the blood into the heart, with the usual freedom, and cannot, therefore, keep the pericardium empty. This forms, then, another and a greater obstacle to the return of blood to the heart; and the consequence is that the cavity of the pleura cannot be kept empty, and so we have hydrothorax."—p. 311.

Dr. Carbutt believes diabetes insipidus to be "always symptomatic of *gastro-enteritis*, or of *gastro-entero-colitis*." "Whether *diabetes mellitus* be not equally the result of gastro-enteritis, I cannot positively undertake to declare. I have not yet made a sufficient number of observations; but my belief certainly leans that way."—p. 319. He subsequently expresses his notion, that it is a chronic gastro-enteritis with hypertrophy of one or of both kidneys, although he offers, and could offer, no satisfactory reason for the belief. By numerous quotations from many eminent chemists, he shews, that "sugar, honey, manna, starch, and gum arabic are identical both in the quality and quantity of their component parts;" and he infers:—

"Now, as the great bulk of the vegetable food we take consists of starch or gum, or sugar, as you all know very well without my explaining it, and as starch and gum resemble sugar so closely, is it at all improbable, that from an imperfect or a deficient assimilation having taken place in the stomach, or, if you will, from no assimilation having taken place, that the gum and starch carried unchanged to the kidneys should there be by a morbid process converted into sugar?"—p. 328.

And again,—"I consider then that sugar is formed in the kidneys of patients laboring under diabetes mellitus; and that its formation depends upon some slight change produced upon the starch and gum, which are carried in an unassimilated state to the kidneys." All this, however, is gratuitous. Is it probable, that an excited state of the gastro-enteric mucous membrane, constituting gastro-enteritis—which generally prevents all absorption whatever—should give occasion, in this instance, to the absorption of unassimilated substances?

Besides, it might be said, that these substances should be discoverable in the blood—an objection, which Dr. Carbutt has anticipated, but instead of obviating it by stating the known difficulty, that exists in detecting any substance—even an inorganic substance, which we may *know* to be in the blood, provided it be mixed with the products of organization,—a difficulty, which has impressed every analytical chemist,—Dr. Carbutt invokes the clumsy doctrine of the existence of a royal road from the stomach to the kidneys, which is abandoned by most of the physiologists of the day. But, granting that all his arguments on this and other points, connected with the pathology of diabetes, were as strong as they are feeble, they would be overturned by the well-known fact, that the liquid ingesta in diabetes often exceed the whole solid and liquid ingesta. A portion of the sugar is doubtless formed at the expense of the system, and all the phenomena lead to the inference, that it is a disease of the

system of nutrition; and, like all diseases seated in that system, extremely difficult of removal; inasmuch as it pervades the whole frame, and cannot be reached by any method of medication. It is like atrophy, when once firmly implanted in the organs of nutrition of every part of the body, generally irremediable. Were the sugar of diabetes—as the author wishes to establish—formed altogether from the vegetable ingesta, no satisfactory reason could be offered, why the system should suffer so much more from diabetes mellitus than from diabetes insipidus; and besides it might be presumed, that by putting the individual on an animal diet, the formation of sugar would be obviated. This last position the author admits; and yet he advises the very diet, which, in his view, gives rise to such formation. We have always thought, that much more has been said of the advantages of an animal diet than it merited. Equally good effects, it appears to us, have supervened on the use of a diet like that recommended by Dr. Carbutt. With the views, indeed, which we entertain of the seat of the mischief, *any* change of diet, and especially that effected by restricting, one, who has been omnivorous, to animal food or to vegetable food exclusively, may tend to modify, in some respects, the action of the organs of nutrition, and break in upon the morbid catenation. The cases detailed by Dr. Carbutt favor this deduction.

The treatment, which he recommends for diabetes, exhibits the oracular manner in which his therapeutical considerations and recommendations are propounded.

"Now, in the first place, if the patient's strength will admit of it, I would draw blood from the arm; I would apply leeches to the epigastrium; I would apply cupping glasses over the kidneys: "*I would order farinaceous and mucilaginous diet,* with *barley water, rice water,*" (Quere. What kind of diet does he consider the barley water and rice water to be?) "or milk and water to drink: I would give the patient the hydrargyum cum cretâ, and the pulvis ipecacuanhæ compositus, in large doses: I would place the patient in a *vapor* bath, a sulphur bath, or a *hot* bath, or *both* every day; I would order flannel to be worn next the skin: I would keep the patient *for the most part* in bed. If the bowels were costive, I would open them by means of castor oil. If diarrhea existed, I would apply leeches to the belly or to the anus, and give laudanum in chalk mixture."—p. 344.

As the author assigns no reason for his employing some of those agents, we cannot understand the principle of management, which he has adopted. On another occasion, he remarks, "I shall have to furnish you with the *rationale* of the treatment, so that if the patient die, I may still have the satisfaction of proving to you that he was treated according to a *rational* method:" yet too often he leaves us in the dark, and frequently an impression rests on the minds of his readers—as it must have done on those of his hearers—that his agents are directed *empirically, and on no "rational"* basis.

Some of his indications of treatment for gastro-enteritis are mere expressions of truisms. They are:—

"1. To overcome the inflammation!

"2. To allow the stomach and bowels to recover themselves; or in other words, to allow nature to recover the patient.

"3. To allow the healing of ulcers, if any such have formed in the stomach or intestines," p. 28: and in the fulfilment of these indications he says, "you may, if *you choose*, *make trial* of mercury"—"you may also try the astringent sulphates," &c. &c.—as if the whole were an affair of mere experiment.

In his comments, too, on a case of amenorrrhœa—a disease, which is of a relative character, and may be produced by very opposite states of the system generally, and of the uterus in particular—he expresses himself in such a manner as to lead to the conclusion, that certain remedies, recommended by him, are applicable to every case of the disease. After observing, that "digitalis is said to have a peculiar determination to the genital organs, both in the male and female; so much so in the latter as to be capable of producing abortion," and after making some other unimportant observations, he adds,—"Had she remained in the house, and the digitalis had entirely failed in bringing on the catamenial discharge, I should have administered the "pilula aloës cum myrrhâ," or the "pilula aloës cum ferro," or the "pilula ferri composita;" all of which undoubtedly possess very great efficacy in this respect, and may be confidently recommended to your employment; as, if there be such things as emmenagogues, these are certainly they."

We did not think, that a single "rational" practitioner of the present day believed, that these articles could induce an emmenagogue agency in *every* condition of the frame. They must obviously be esteemed indirect agents, and can only be adapted to conditions of the system, marked by asthenia, either of the whole frame, or of the uterine portion especially.

Dr. Carbutt regards mercury as "the most certain remedy for inflammation in almost all the textures of the body, but more especially in serous textures" (p. 157): and, again—"It is the particular excellence of calomel that it is adapted to either *passive* or *active* dropsy. In the first kind, it acts by its power over the liver. In the latter kind, it acts as a purgative, as a diurectic, as a diaphoretic; and more especially, by its power over the system, in removing inflammatory action, or any action or state bordering upon inflammatory," p. 288.

Such is a fair sample of Dr. Carbutt's views—physiological, pathological and therapeutical. We do not say, that every portion of his observations is equally exceptionable. The extracts we have given will have shewn, that there are grades of difference amongst them. The reader may,

however, look in vain for any marked relief—for an oasis in the desert before him. Not a sound novel idea strikes his attention, whilst admitted truths are conveyed in language so singularly infelicitous and imprecise, that the first impression usually felt is, that the whole must be erroneous. Could we have a better specimen of that kind of rhetoric, to which the name *twaddle* has, in common parlance, been affixed, than in his episode on the drunkard?

"Look at the poor, tremulous, nervous, headachy, spiritless, maudlin, red-eyed, purple-nosed, pimple-faced creature, with hardly energy enough to wash himself with cold water in the morning. His tongue is foul, his breath offensive, his hand trembling, and his walk languid. If he speak, his speech bewrayeth him; if he write, his writing discloses the secret. The habit has crept upon him with a slow and silent step,—*suspenso pede*,—with a most stealthy and *cat-like* pace. But, when it has overtaken its victim, when the meshes of its net are thrown around his shoulders, then are his struggles as vain as those of the fly in the spider's web."—p. 52.

But, after all, the most racy comments of Dr. Carbutt are appended to a case of feigned disease in a young unmarried female. They are too rich to be passed by without notice.

"The fact is, she confessed to the nurse privately, that she was pregnant, and that *she could not face the doctor;* she therefore walked off without waiting for my arrival. The particulars of the last day were taken early in the morning by the young gentleman who officiates as my clinical clerk. I must be allowed to state in *our defence*" (who laid any charge against them?) "*that this girl was not taken in either by me or by Mr. Lloyd, our able house-apothecary.*"—p. 225.

From the evidences, then, which we have adduced from the work itself, the charges, made at the commencement of this article—that the author is neither physiologist nor pathologist—have, we think, been fully sustained. We have not been desirous of acting the part of a Zoilus; and had not the author obtruded his opinions as if they were canonical, our attention might not have been so particularly directed to them. Having examined the book, however, and found it to fall so far short of its pretensions, we have considered it right, as honest and impartial critics, to express our sentiments fully and freely. We have no knowledge whatever of the author. From the dedication and notice, prefixed to his work, he appears to be one of the physicians to the Manchester Royal Infirmary; and these lectures would seem to be the first he has delivered; and to have been published "for the satisfaction" of a number of gentlemen, who were desirous of hearing them delivered, but were prevented from doing so by a regulation of the "weekly board." He may, therefore, improve; but we would advise him, in the mean time, to follow the example of Cid Hamet Benengeli, in *Don Quixote*, and promise *repose to his pen.* R. D.

A Manual of Chemistry, containing a condensed view of the present state of the Science, with copious references to more extensive Treatises, original papers, &c. By Lewis C. Beck, M. D. Professor of Chemistry and Botany in the University of the city of New York, &c. &c.

This is the second edition—revised and enlarged—of a very useful work, which has already met with gratifying evidences of public favor.

It purports to set forth in a concise and perspicuous manner the principal facts of the important science to which it is devoted, and at the same time to furnish the student with such references to other works, as may direct him in his researches into its more minute and practical parts. The basis of this manual is acknowledged to be Dr. Turner's "Elements"—a work which, either in its British or American form, no professed student of chemistry should be without;—but which, lopped of its redundant explanations, as in the present case, will probably be more acceptable to the *medical* student, for whom it is especially designed.

The arrangement of the subject is, in our opinion, better than that of Dr. Turner; being more methodical, and more likely to serve as a systematical *text-book*, both to the student and professor of the science: it is that originally adopted by Professor Brande.

Dr. Beck announces the improvements in the present edition to consist; "in the introduction of many interesting facts discovered within the last three years; the adoption of atomic numbers, founded on the experiments of Berzelius and Turner; and the employment of symbols to denote chemical substances and their compounds, &c."

Improvements of this character are a matter of course in every *later* work on any branch of science; still it is necessary to be greatly on our guard how we introduce many that are given out as such. For example;—although it be true of Dr. Prout's assertion, viz:—the atomic weights of bodies are multiples by a whole number of the atomic weight of hydrogen—that it is founded on a hypothetical assumption, it is so convenient, and withal confirmed by so many positive results, we cannot but feel loath to abandon it. The more so, that the new numbers only profess to be "for all ordinary purposes sufficiently near the truth." Now, we do not see why—unless 35, 42 be the *exact* atomic weight of chlorine—the old number 36, should not be considered as "sufficiently near the truth;" or why rather, faithful to the old hypothesis, the round-number 35 should not have been preferred. The necessity of introducing decimals in representing the equivalents of a whole host of chlorides, that without this change would have remained expressed by round numbers, would have been avoided, and above all,

that simplicity, so essential to inspire confidence in the student, and to remove even the appearance of difficulty and uncertainty, would have been maintained. Berzelius and Dr. Turner, certainly deserve great praise for their zeal and skill in performing the minute analyses of chemical compounds; and it seems to us that all the advantages of their late results would have been secured, by appending a table exhibiting the proposed corrections of Dr. Turner, and suffering the former generally received equivalents—excepting in a few cases which it would lead us too far to specify—to remain in the text.

The introduction of symbols is a real improvement. Those lecturers on chemistry who are in the habit of inscribing upon a black-board the composition of the different substances which they describe to a class, know the advantage of familiarizing students with the use of them.

To give an idea of the manner in which the chemical history of the different substances is given, we make the following extract—regretting at the same time, that want of space compels us to select one of the shortest, and, as such, least satisfactory, sections of the work.

Citric Acid.—Atom. Num. 58—*Symb.* 4O+2H+4C.

STATE AND PROPERTIES. This acid, discovered by Scheele, is found in very large quantity in the juice of the lime and lemon. It crystalizes, in large and transparent rhomboidal prisms, which are terminated by four plane surfaces, and undergo no change in the air; when concentrated it has a very sour and almost insupportable taste, and reddens litmus powerfully; is soluble in an equal weight of cold, and half its weight of boiling water; when exposed to heat it is decomposed, and besides the usual products, a peculiar acid sublimes, called *Pyrocitric Acid.* It is obtained from lemon juice, by a process very similar to that for obtaining tartaric acid.

This acid is sometimes used as a substitute for lemon juice, and when added to the carbonate of potassa or soda, forms an effervescing draught. It combines with various bases, and forms *Citrates,* but these are of little importance.

REFERENCES. *For a very full account of Citric Acid, see Parkes' Chem. Essays,* iii. 3. *Lassaigne, on Pyrocitric Acid, Ann. de Chim. et de Phys. or Repert. of Arts, 2d ser.* xlii. 251.

On the whole, then, we can have no hesitation to recommend Dr. Beck's Manual as a very good class-book: it is well arranged; well printed; and there are but very few errors either of commission or omission. There is, however, one correction neglected to be made in which we are personally interested (as the fact happens to be given on our authority,) and therefore take the liberty to supply it. Under the head of SODIUM, it is stated that this metal "inflames with cold water when in contact with charcoal, and the product is *water* and sodiuretted hydrogen." It is evident that the latter clause of the sentence should read,—"*and the product is soda* and sodiuretted hydrogen." J. T. D.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. *Douche to the hypogastrium in uterine hemorrhage.* By Dr. Trivigno.—In the case of a female who miscarried at the sixth month of pregnancy in consequence of a fall, and who was reduced to a most critical situation by uterine hemorrhage, Dr. Trivigno was induced to try a remedy which had been recommended to him by an old practitioner for the relief of strangulated hernia, having previously resorted in vain to the ordinary means advised for the arrest of uterine hemorrhage. The female was placed upon a table previously covered with a folded blanket, with her head supported by a pillow. The husband, standing upon a chair, was then directed to let a small stream of water of the ordinary temperature (it was summer) fall upon the utero-vesical region, for the space of six minutes. This done, the patient was placed in a convenient position in bed. From this time the hemorrhage abated, and the condition of the woman was so far improved, that a proper dietetic regimen, and a little cordial medicine, restored her to health in a few days. Dr. Trivigno remarks, that he has since that time constantly employed the same remedy under similar circumstances in preference to all others, and always with the same success. Care should be taken not to employ the douche at too low a temperature, and to regulate its duration by the strength of the patient.—*Il Filiatre Sebezio di Napoli. Mai.—Revue Medicale.*

2. *Monstrosity by inclusion.*—M. Andre de Peronne recently presented to the Academie Royale de Medecine, the report of the case of a boy, aged seven years, in one of the testicles of whom, a cyst, containing teeth, was found.

3. *Abstinence for the cure of Intermittent Fever.*—Dr. Medwedew, practising physician at Mariampol, affirms that absolute abstinence constitutes the best remedy for the cure of intermittent fever. He enjoins an absolute restriction of every thing in the way of diet, except simple water, for three days,—and seldom finds it necessary to resort to emetics or cathartics. All articles of food, however small in quantity, tend to retard the cure. After the third day, however, the individual may be allowed to return gradually to the use of diet. Dr. M. represents, that he has pursued this course for 25 years, in different parts of Russia, and has always found it highly successful in the treatment of every variety of intermittent fever.—*Otto's Bibliothek for Læger, No. 3.—Kiobenhavn*, 1834.

4. *Nux vomica in cardialgia.*—A young female, aged upwards of twenty years, had been for about four years past severely afflicted with cardialgia, and had employed a great variety of remedies without obtaining any relief. She had

been advised to use some bitter saline waters, which greatly exasperated her sufferings. Under these circumstances she applied to Dr. Schmidtmann. Her general habit manifested an unhealthy cachectic condition. Her tongue was clean, and her taste unimpaired; her appetite was also good, but every species of food occasioned excruciating pain of the stomach, which generally continued two or three hours, then gradually subsided, and was followed by a perfect intermission, until it was again renewed by taking food. During the continuance of her sufferings, the stomach and whole epigastric region were so much distended as to oblige her to loosen all her clothes. The menstrual and alvine evacuations were natural; but her strength was much prostrated. A bland diet and an appropriate regimen were instituted, and she was directed to take two grains of nux vomica in powder, with a little sugar, five times in the course of the twenty-four hours. By this simple course she was completely relieved in the space of eight days, and for three years, during which time she was under the observation of Dr. Schmidtmann, she did not experience a recurrence of the Cardialgia.—*Schmidtmann, Summa Observat. Med. Tom.* 3, *Berol.* 1826.

---

5. *Enormous Hypertrophy of the heart, unattended with lesion of the orifices, or serous effusion—sudden death.*—By M. J. H. Labat.—An individual, aged sixty-three years, who had been for a long time affected with asthma, while on his way to Paris on board of a boat, became suddenly indisposed after dinner, and expired in a short time. An inquest was ordered by the Mayor of the commune, and Dr. Labat was called upon to examine the body. The individual had a strong complexion, and the skin presented the yellowish tinge which is frequently observed in those who have been for a length of time affected with diseases of the heart. The superficial vessels of the brain did not contain much blood, but the substance of that organ was considerably injected. The mucous membrane of the stomach was red and thickened, as it is in those who are addicted to the too free use of alcoholic potations. The mucous membrane of the trachea and bronchia was also red, and apparently thicker than natural. The lungs were perfectly healthy and crepitating, and did not contain much blood. The heart was enormously enlarged, (thrice its natural size,) and protruded the left lung upwards and backwards. Its form was also altered, and all its cavities contained a large quantity of black half-coagulated blood. Their walls, particularly those of the left ventricle, were hypertrophied, but no lesion could be discovered either at the orifice of the vessels or the auricles.

Dr. Labat thinks that one important feature in this case is, the absence of serous effusions, and the existence of cerebral injection with absence of constriction at the orifice of the aorta. He suggests, that in consequence of the co-existence of these conditions, it is probable the individual might, at a later period, have fallen a victim to apoplexy.—*Journal Hebdomadaire, Juillet,* 1834.

---

6. Dr. Pitschaft remarks, that he is acquainted with a young man, who has the pupils of his eyes very unequally dilated. That of the right eye is preternaturally dilated, while that of the left is very much contracted. The faculty of vision is equally strong in both, and at all distances.—*Hufeland's Journal für Praktisch Heilkunde.*

7. *Tubercles of the uterus and placenta.*—In the body of a female who died of phthisis in the seventh month of pregnancy, small crude tubercles were found upon the surface of the uterus, beneath the peritoneum; and what is infinitely more rare and remarkable, there were eight or ten whitish colored tubercles, from the size of a pea to that of a nut, upon the uterine face of the placenta. The fœtal face of the same organ presented several miliary tubercles, which were situated beneath the amnion. None of the organs of the fœtus were affected with this degeneration.—*Revue Medicale. Juliet*, 1834.

8. *Ascites, with obliteration of the hepatic vena porta.*—In an individual affected with ascites, who died of peritonitis excited by paracentisis, the hepatic vena porta was found completely obliterated by a considerable fibrinous mass. Many parts of the inferior vena cava presented minute osseous concretions, of a fine lamelated or micaceous appearance, slightly elevating its internal membrane. The spleen was enlarged.—*Ib. Août.* 1834.

9. *Inflammation of the Symphises of the Pelvis.* By Dr. Hayn.—A female of small stature, and lymphatico-plethoric temperament, aged 29, had been several times delivered without difficulty. During her last pregnancy, she experienced pain in the left hypochondrium, which subsided spontaneously, after continuing some time. At the full time she had an easy delivery of three viable children, weighing respectively 5¼, 5¼ and 4¼ pounds. She continued to do well until the third day, when she was seized with acute pain in the regions of the principal articulations of the pubis, more especially in the right sacro-iliac symphisis. The skin was hot, and the soft parts tumefied even to the vicinity of the umbilicus. The pulse was full and hard, and the dejections from the bowels frequent and liquid. Blood-letting both general and local, local baths, emollient cataplasms and mercurial inunctions were employed without success. The system of the patient, worn down by pain, and by the increase of family, could not be made to re-act. The lochia immediately became yellowish, and exhaled a cadaverous odor; the pulse became frequent, and on the eighth day crepetation and mobility was discovered in the right sacro-iliac symphisis. Twice before this a tumor formed on the dorsum of the right hand, which on being opened, discharged one ounce and a half of purulent matter mingled with serosity. She finally died, on the eleventh day. On examination of the body, the uterus was found less contracted than is usual at the period after delivery; and its internal surface was covered with dirty brown deposite. Its structure, however, was healthy. The bladder was enormously distended with urine, and ascended to the umbilicus, doubtless in consequence of the inflammation having extended to the neck of the bladder, from the symphisis pubis. The sacrum was moveable between the ossa innominata, and collections of pus existed in the three articulations of of the pelvis, especially in the two sacro-iliac symphises. The intestines were healthy, but distented with gas; and all the other organs were in their natural condition.

The same author reports, that he had seen three other cases of the same nature, which terminated successfully. In all of them the delivery was easy, and he attributes the occurrence of the disease, rather to some peculiarity of constitution, than to the efforts of parturition.—*Medicinische Zeitung, and Journ. des Connais. Medico-Chirurgicales, Dec.* 1834.

10. *Radical cure of Varicocele.* By Dr. Fricke.—After pointing out the danger and disadvantages attending the method proposed by Professor Wurzer, as well as that recommended by M. Breschet, which was described in a preceding number of this Journal, Dr. Fricke furnishes the following description of a method which he adopted, and thinks infinitely more advantageous.—"I took a common sewing needle of the proper size, and embracing a part of the scrotum with the left hand, so as to seize between my fingers one of the dilated veins, I transfixed with the needle, the scrotum and the vein, and brought out the instrument on the opposite side, also through the integuments and the coats of the vein. I then cut the ligature of sufficient length to tie, so as to include the subjacent portion of the skin, which, when the scrotum is left to itself measured about three fingers breadth in extent. I repeated the same operation with great facility upon two other varicose veins, and so little pain was occasioned that the patient remained seated opposite to me during the whole process. No bandage was employed, and the testicles were merely supported in a horizontal position by means of a small pad. Some tumefaction, redness and tenderness of the testicle supervened on the next day, when the thread was withdrawn. The tumefaction subsided gradually, and by the twenty-first day, the three veins were obliterated and converted into solid indolent chords. The same operation was successfully practised by Dr. Grossheim in another case.—*Medicinische Zeitung*, 1832, *and Journ. des Connaissances, Medico-Chirurgicales, Dec.* 1834.

---

11. *Treatment of gangrenous emphysema.*—In the *Gazette Medicale, for September*, 1834, there are some observations by M. Lisfranc on this subject. It has long been the practice with the best surgeons, to amputate in cases of traumatic gangrene, although the mortification may be progressive. M. Lisfranc even suggests in such cases, to amputate through parts which have already become emphysematous, although the tissues may be brown, devoid of contractility and incapable of throwing out a drop of blood. He remarks, that these structures will become reanimated after the operation;—that they will resume their sensibility, assume a red color, and pour out red blood. When emphysema manifests itself along the course of the vessels, where its presence is declared by a reddish colored painful stripe, crepetating on pressure, he proposes incisions to extricate the putrid gases, or compression to prevent their progression upwards. The case of a man is reported by him, whose arm was amputated, and the flap was seized with gangrene. The gas proceeding from this source ascended into the axilla. M. Lisfranc made a crucial incision in the gangrenous eschar, cut away the flaps and drew the bistoury freely over the subjacent parts. He then dressed the stump with powdered cinchona, and chloride of soda, of the strength of 3°. The eschar was not renewed, the emphysema disappeared, and the only bad consequence that followed, was the formation of an abscess in the axilla, which was opened and healed kindly.—*Ib.*

---

12. *On Ioduret and Hydriodate of Iron.* By Dr. A. T. Thomson.—"In reflecting upon the solubility of the Ioduret of Iron; and the striking difference, in this respect, between that compound and its components; and, knowing the value of these separately, as medicinal agents, I inferred that the

curative influence of both might be greatly enhanced by the facility which the compound affords of introducing them into the system, in the state of combination. Another consideration which led me to suspect that this combination of Iron and Iodine would prove a useful medicinal agent, was my knowledge of the powerful influence of Iron as a tonic, when administered in the state of a Protoxide; and I was aware that it exists in this state in the Hydriodate, into which the Ioduret changes when it is dissolved in water. I supposed that, if this active oxide thus combined with Hydriodic acid were taken into the circulation, a circumstance extremely probable, the Hydriodate, meeting with an alkali, would suffer decomposition, and thus the two compounds would be enabled to exert their separate influence on the system, in a form and under circumstances the best fitted to render them efficient.

"Now, there is much reason for supposing that the Hydriodate is decomposed in the system, and that the Protoxide of Iron, and the Alkaline Hydriodate which result, exert their separate influence on the nervous and the vascular organs; the former operating as a tonic on the vital solid, and the latter as a powerful stimulant to the capillary system. Or, if we take another view of the subject, keeping in recollection the striking influence of Chlorine on the solution of the Hydriodate out of the body, and knowing, also, that this agent is evolved in the course of the circulation, it is possible that the Protoxide of Iron, which is set free by the decomposition of the Hydriodate in the system, may be converted into the Proto-muriate of Iron, whilst the Iodine is evolved in a free state; and thus the same tonic and stimulant influence would be as powerfully exerted as in the former case. If either of these theories of the manner in which the Hydriodate operates be admitted as correct, the class of diseases in which it is likely to prove useful at once present themselves; namely, those in which the capillary system requires to be stimulated and the tone of the habit to be maintained, or to be brought up to the healthy standard:—Scrofulous affections, Tabes Mesenterica, Chlorosis, incipient Scirrhus, Rickets, Amenorrhœa, Bronchocele, Atonic Dyspepsia, and all conditions of direct debility."

We have a very humble opinion of the amount of our knowledge as to the *modus agendi* of medicines in the interior of the body. The chemistry of the living alembic is to us a *terra incognita;* and therefore the ingenious theory of our author is as good as any other. It is of more importance to know that Dr. Thomson has successfully employed this combination of iron and iodine in the various forms of scrofula, of which forms he has adduced cases in illustration.

"As the Hydriodate of Iron possesses both the stimulant properties of the Iodine, and the tonic powers of the Protoxide of Iron, the probability that it might produce all the beneficial, without the deleterious effects of iodine, was presumed; and I was, therefore, induced to order it in *scrofulous* affections. The results that have followed its administration have been such, that I have no hesitation in regarding it a most valuable addition to the means which we already possess of treating the *chronic* forms of these diseases."

It is to be borne in mind, that the medicine in question is a stimulant; and that, when marks of irritation in the primæ viæ exist, care should be taken to clear the bowels, and remove, if possible, the causes of irritation, before exhibiting the remedy. The following form; we perceive, is that which our author generally employs:

℞. Ferri iodureti, gr. ij. ad. gr. iv.
Aquæ distillat. ℥ xj.
Tinct. aurantii, ℥ j.
Ft. haustus ter die sumendus.

Cases are adduced by our author, and by respectable correspondents, where the remedy was found useful in chlorosis, in carcinomatous diseases, in syphilitic cachexiæ, &c. for which we must refer to the pamphlet itself. As each of the ingredients, singly, is of known efficacy in many diseases, we consider it very probable that the combination will be found a valuable formula.

Medico-Chirurgical Review, Oct. 1834.

---

13. *Double Ganglia of some of the spinal nerves; and on a direct communication between the spheno-palatine and lenticular ganglia.* By Mr. Swann. It has been supposed that the anterior and posterior bundles of the spinal nerves serve for uniting or controlling different sets of muscles; but it is not a very rare occurrence for some of the ganglia of the lumbar and sacral nerves to be double; and in every example of this sort I have carefully examined, the anterior bundle has also divided equally to join the anterior point of each divided ganglion.

In one subject I traced a very distinct nerve passing upwards from the spheno-palatine to the lenticular ganglion; but whether this be constant I cannot at present determine.—*London Med. Gaz., October* 1834.

---

14. *Treatment of Nasal Polypi—reported by* Mr. Copland Hutchinson. Mr. Joseph Dallaway, a divisional surgeon of the Coast Blockade, states that in seventeen cases of common nasal polypi, he has succeeded in curing them all without forceps, or any other mode of treatment than a solution of the sulphas zinci in water, in the proportion of from ℈ ij, to ℥ j. of the former, in ℥ j. of the latter. This lotion, he states, is to be introduced up the nostril by means of lint, which has been well moistened with it, and the lint spread over the surface of the tumor, so far up as can conveniently be effected, by means of a probe or director. This lint must be kept moistened by dropping-in the solution of zinc four or five times in the day, and then by removing it night and morning, to be replaced with a fresh piece of such moistened lint. Mr. Dallaway states that his seventeen cases were all cured of the disease within a fortnight, by this simple remedy. He does not state, however, that any of the cases enumerated were of a malignant nature, but merely the common soft species of polypus, as I understand him.

Mr. Dallaway first adopted this practice in polypus, he says, so far back as 1797; and aptly remarks, that it *may* be equally successful in certain cases of polypus uteri. I must say, that upon the receipt of this paper, I tried the remedy in my own practice at the Westminster General Dispensary, and in three cases of the soft common polypus I succeeded, within ten days, in removing the disease; and I understand from my colleague, Mr. Thomas Chevalier, that he was equally successful with one or two others.—*Ib. Nov.* 1834.

---

15. *Exudation of salt from the skin.* By C. J. B. Aldis, M.A. M.B.—*Henry Fox, æt. 55,* was admitted under one of the physicians of St. George's

Hospital on November 9th, 1833, complaining that he was attacked, November 3rd, with dyspnœa, having been previously in good health, though occasionally subject to palpitation of the heart. This was followed by swelling of the abdomen and scrotum; much pain in the chest; cough, without expectoration. Can lie low in his bed, but only on the back. Was sixteen years ago attacked in the same manner. Pulse 88; tongue whitish; bowels regular; urine very scanty, not a pint having been passed for six days.

November 26th.—Is reported to have perspired very profusely last night. A white powder upon both temples.

27*th.*—The white powder over a more extended surface.

28*th.*—Deposit of white powder, as yesterday. The white, apparently saline, deposit very abundant on the face, in points and circular spots. I took some of the saline matter to Dr. Prout, who was kind enough to analyze it, and found the great bulk to consist of common salt.

Swediaur has seen an inveterate case (of gout), in which the patient, laboring under a paroxysm of several months' duration, had the entire surface of the body covered every morning with a white powder, as though he had been dusted with flour. Dr. Mason Good conjectured that it was urate of soda thrown off by the skin.—*Ib.*

---

16. *Stercoral fistula extending through the sacrum.*—M. Ricord presented to the Academy of Medicine a very curious pathological specimen. It was taken from an individual, who for nearly thirty years, had passed his fæces in part by the anus, and in part through a fistulous opening which traversed the sacrum.—*Revue Medicale, Sept.* 1834.

---

17. *Fungus tumor of the periosteum.*—M. Roux presented a humerus, the upper extremity of which was enormously enlarged by the development of a lardacious fungous tumor, which apparently had its origin from the periosteum. The external laminæ of the bone likewise were degenerated, but the medullary canal, and the inner surface of the cylinder of the bone, were scarcely altered. The weight of the tumor, divested of the surrounding structures, was fifteen pounds. M. Roux had removed the member by amputation at the shoulder joint. The scapula was healthy, but the articulation was nevertheless affected with incipient anchylosis, which increased the difficulties of the operation, an hour being consumed in accomplishing it. The patient only survived four hours.—*Ib.*

---

18. *Injection of a clot in the heart.*—M. Vernais recently reported to the Anatomical Society of Paris, that while injecting a subject for anatomical purposes, he succeeded in injecting a clot contained in the centre of the heart. [*Lancet.*

---

19. *Luxation of the femur upwards and backwards, without laceration of the round ligament.*—A case of this kind was recently presented to the Anatomical Society by M. Sedillot. The ligament was elongated, but no rupture existed.—*Ib.*

---

20. *Phlegmasia Cœrulea Dolens.* By Dr. Stokes.—A middle aged woman was attacked, about three weeks after delivery, with symptoms of an intense

peritonitis, for the removal of which the most active measures were necessary. These were succeeded by a state of extreme prostration, and after a few days, intense and universal bronchitis set in; so severe as for a considerable time to leave scarcely a hope for the recovery of the patient. It became necessary after the first few days of this attack, to have recourse to the free use of stimulants, consisting of wine, the decoction of senega with carbonate of ammonia, and the employment of blisters to the chest. The chest affection gradually subsided, and the patient appeared convalescent, when she was suddenly attacked during the night with violent pain in the left leg and thigh: and on the next morning the affected extremity presented all the appearance of acute general phlegmasia dolens, with the exception of the color. The limb from the groin downwards, was universally and equally enlarged. It was hot, elastic, exquisitely sensible, and deprived of motion. There was little or no swelling of the glands of the groin, nor was there any apparently cordy state of the saphena; but the remarkable circumstance was the color of the limb, which was a deep purple hue, in some places almost black, and presenting more or less of a mottled appearance. This coloration was universal, and presented a most extraordinary contrast with the rest of the body.

The patient was treated by leeching, and the free exhibition of calomel and opium, the strength being supported by nutritious broths. The discoloration of the limb disappeared in the course of a few days, and her recovery was rapid and complete.

It was remarked in this case, that during the first days of the inflammation, no pulsation could be felt in the femoral artery at the groin. But this returned with the subsidence of the swelling.—*Dublin Journal, Nov.* 1834.

---

21. *Case of Catalepsy.* By Dr. J. R. McComb, New York.—On the 27th of July, 1831, I was called in haste to visit a little girl, about seven years old, residing in the family of Mr. Vreeland, in Chamber street. They informed me that she had been playing and romping about the room when she suddenly fell; previous to this she was perfectly well and healthy. On my entrance into the room, she was lying on her back, with her eyes fixed towards some apparent object. I spoke to her, but received no answer. The family also informed me that they had endeavored to arrest her attention, but could not; her breathing appeared perfectly natural. I raised her hand and arm from the floor, for the purpose of examining her pulse, (which was about 90, and rather hard,) after which I attempted to let it down, or lower it gently, when, to my astonishment, I found that it remained in the position to which I had raised it. I now ascertained the nature of the disease, and tried the experiment with the other arm; then inclined the head on her breast, raised her legs, making her whole person nearly a circle, and allowed her to remain in that situation for nearly ten minutes, until the family begged me to desist; I drew down one eyelid, while the other remained open; in fact, place her limbs in any position, there it would remain until altered. After I had gone through with these experiments, I bled her to 10 ℥, ordered warm bath and stimulating injections, *and returned* in about one hour with my friend, Dr. R. K. Hoffman. We found *but very little change* in her symptoms. Dr. H. tried the same experiments, *and we then retired* to another room. Whilst there, and while the family

were administering an injection, she suddenly recovered. The bowels had been in a very costive state, and I administered calomel, grs. x. and pulv. rhei. grs. x. It is now three years since the above case, and I am happy to say, that there has not been any return of the complaint.—*United States Med. and Sur. Journal. Dec.* 1834.

---

22. *Symphyseotomy.* By Professor Petruni.—M. Verderosa, twenty-four years of age, rachitic, and of a diminutive stature, wishing to marry, was conducted by her parents to M. Galbiati, in order to ascertain whether the size of the pelvis permitted her to run the chance of becoming a mother without risk. She was accordingly examined, and the measure of a line extending from the mons veneris to the superior spine of the sacrum gave five inches and a quarter; the surgeon therefore advised her not to marry, but his recommendations were neglected, and the woman soon became pregnant. After a period of nine months, she commenced, on the 31st of May, to feel the first labour pains, at six o'clock in the evening, and at two the following day the membranes were ruptured; the pains now relaxed a little, as is usual, and then returned, but the neck of the uterus did not dilate, and the head of the child was stopped at the inlet of the pelvis, which was too narrow to permit its descent. The midwife now called up M. Galbiati, who sent for me.

Our first care was to endeavor, by every possible means, to determine the several diameters of the pelvis, which were found to be as contracted as before marriage. It now remained to decide on our conduct. Should we wait a little longer, although the waters had come away for ten hours, the pains were violent and the head was arrested at the superior orifice? But what chance was there of the case terminating successfully, with a child at full term, and a sacro-pubic diameter of two inches and a quarter? Hence, regarding the time which had elapsed, and the excessive smallness of the pelvis, we decided upon an operation. But as to the choice of the peculiar operation which was applicable, the cæsarean had always caused the death of the mother when practised amongst us, whereas symphyseotomy presented many chances of saving both mother and child. Besides, in the case before us, symphyseotomy was capable of increasing the antero-posterior diameter by one inch and a half to two inches and a quarter, and would therefore give us a superior diameter of three inches and three quarters, which is sufficient for a natural labour. I therefore performed the operation, and in a few minutes, although the symphysis was somewhat deviated; but I took for my guide the softness of the fibro-cartillage. The completion of the section was announced by a loud sound, which clearly indicated the degree of distension in which the inlet of the pelvis was placed. The labour was now abandoned to the force of nature, as we had agreed upon; the thighs were merely supported, and it required a separation at the symphysis pubis of two inches, before the head began to descend into the superior aperture. The interval was greater towards the right side than to the left, whence the passage was there more free. The head acted as a wedge, dilating the pelvis, and forced on by the uterus. After some pains, determined by a single dose of the secale cornutum, we perceived the head of the child descend into the pelvis, presenting its occiput completely engaged in the interval of the symphysis. At the end of an hour, the labour terminated in the first position, and a child was born in a state of asphyxia, from which it was soon recovered;

the child has continued to do well; the head appeared elongated, and had therefore undergone some reduction, but not more considerable than in a natural labour when it is protracted. Its circumference was thirteen inches, its greater diameter five, and the biparietal diameter, measured the next day, gave three inches and some lines. The incision made through the pelvis and soft parts gave discharge to a very small quantity of blood; the lochia appeared as usual, and a bandage with buckles was fixed round the patient's pelvis. With common dressing the wound was completely cicatrized in thirty-five days.—*Il Filaitre-Sebezio.—Lancet. Oct.* 1834.

---

23. *Action of rarified or condensed Air on the surface of the Body.*—M. Junod has read a memoir to the Institute of France on the effects of the condensation and rarefaction of the air on the whole body or on individual members. The apparatus he uses is a spherical brass receiver, three metres, three decimetres in diameter, the sides of which are maintained within by iron rings supporting a bench on which the subject of the experiment is seated. Light is let into the apparatus by two glass plates in the sides. The upper part has an opening which may be hermetically closed by means of a spherical plug, or spherical leather cup. This cover has three appendages, intended to contain a thermometer, a barometer, or manometer, and the third a cock for the renewal of the air. The condensation and rarefaction of the air is effected by a pump communicating with the interior of the sphere by a tube.

If the atmospheric pressure is augmented by one half, the phenomena observed are:—

1st. Sensation of pressure on the tympanum which is driven inwards: this gradually disappears as the equilibrium is re-established.

2nd. Easier play of the respiration, deep and less frequent inspiration: in a quarter of an hour agreeable warmth of the chest, as if the pulmonary areolæ, hitherto incapable of respiration, dilated to receive the air.

3rd. Pulse somewhat frequent, full, and not easily compressed: the superficial veins flaccid and even completely obliterated, so that the blood seems to return to the heart by the deep seated veins.

4th. Functions of the brain more active, the imagination vivid, &c.; in some a sensation of drunkenness.

5th. This increase of inervation affects the muscular system, the movements of which are easier and more precise.

6th. Digestive functions more active: no thirst.

7th. Salivary, venal and glandular secretion in general more copious.

When the atmospheric pressure is diminished by one quarter, the inverse of the above are observed; that is, distension of the tympanum, producing a sensation resembling pressure, which is also dissipated by the renewal of the equilibrium; impeded respiration, short and frequent inspirations, often dyspnœa, pulse full, compressible, frequent; turgescence of the superficial vessels of the eyelids and the lips; frequently hæmorrage with tendency to syncope, disagreeable heat of the skin, the functions of which are increased in activity, enfeebled inervation and muscular power, diminution of the glandular secretion.

Pressure on one member increased by one half is effected by a peculiar instrument and produces these effects. The skin becomes pale, the superficial

veins become flaccid, the limb is diminished in volume, the circulation is suspended over a varied space. After the operation the limb is sensibly lighter, the movements easier and more precise. Other phenomena occur according to the limb operated upon. Thus, if one of the legs be acted on, vertigo, tinnitus of the ears, sparks of the eyes, difficult respiration, &c., supervene.

Pressure diminished by one-ninth on one or more limbs gives these symptoms. The skin is distended and colored, the limb increased in volume in a very few minutes, the temperature of the surface reaches that of the deep-seated parts; copious transpiration forming a vapor which condenses on the sides of the apparatus. After the operation a slight numbness of the limb is felt.

When pressure is diminished on one or several limbs the following general phenomena are seen. The head is light, the face pale, the pulsation of the facial branch of the frontal artery becomes slower, thready, and is sometimes lost: there is then tendency to syncope. The respiration is easier, the digestive functions lose their activity; nausea sometimes comes on; towards the end of the operation the transpiration, which had been confined to those parts within the instrument, becomes general.—*London Medical and Surgical Journal, Nov.* 1834.

---

24. *Matter of Miasms.*—M. Bossengault has endeavored to shew that it is possible to detect miasms in the atmosphere, and that the existence of an hydrogenated principle in that fluid may be proved. After going over the preceding inquiries made into the subject of miasms, by Moscati, Rigaud Delille, &c. M. B. proceeds to relate his own, from which it appears that the quantity of hydrogen obtained is in exact proportion to the insalubrity of the air. Nay, more, he believes hydrogen to be component of the atmosphere, from the circumstance of his having obtained a small quantity of water by passing very dry air, and having no organic in it, through a red-hot tube. In conclusion of his memoir, he observes—"M. de Saussure found by his experiments the presence of a combustible gas having a carbonaceous base in the atmosphere. I, too, have shewn that the air contains a very small proportion of an hydrogenous principle. Combining these results, it appears to me natural to conclude that the atmosphere, probably contains a small proportion of carburetted hydrogen.—*Revue Medicale, Sept.* 1834.—*Ib.*

---

25. *Mastic for stuffing carious Teeth.*—M. Henri has found a cement, which was presented to him, to be composed of

Mastic - . - -	81.4
Sulphuric ether - - -	11.6

It is obtained by placing the mastic in cold ether, which soon dissolves it; it is then decanted and kept in a stoppered bottle. To use it, a small piece of cotton, according to the size of the tooth, is made to imbibe a portion; after cleaning and drying the tooth, the cotton is introduced, and is said to be very effectual in stopping it and preventing any aching.—*Ib.*

---

26. *Albuminous Urine in Dropsy.*—I cannot subscribe to the opinion so warmly advocated by men of distinguished talent, both in London and Edinburgh, that an albuminous state of the urine in dropsy depends upon a struc-

[illegible]

Arthur Davis, a fisherman, was admitted on the 14th of May, affected with cachectic symptoms of fever, drink and excitement. His disease was of many weeks standing, and although at its first origin it appeared to have been ushered in by cold, and to have had an inflammatory character, yet, at the date of his admission, every symptom of inflammation and of fever had disappeared, if we except some tenderness of epigastrium, probably owing more to functional derangement than to gastritis. Appetite bad, thirst great, urine loaded to an extreme degree with albumen, skin moist, constipated, he has some cough and expectoration, depending on slight bronchitis, together with a certain degree of dyspnœa, which may be owing to slight pulmonary œdema. It is to be remarked, that this man's health had been broken for a year and a half, consequently long before the appearance of the dropsical symptoms. Having acted briskly on the bowels on the first day, we gave a powder consisting of one drachm of supertartrate of potash, and one scruple of bark three times daily. This had an excellent effect on the kidneys, increasing the urine, but not in proportion diminishing the quantity of albumen. His skin continued to be moist, and he improved in appearance and strength; but it was observed that he scarcely ever slept more than one hour at night, while the dropsical swellings that had at first rather diminished, became stationary. This latter circumstance, combined with his watchfulness, the complete absence of fever, his great thirst, albuminous urine, and the absence of organic disease, together with the moist state of the skin, determined me to use opium, which was administered at first in the form of enema, but after-

wards in that of a pill, containing one grain and a half of opium. Under this plan of treatment his sleep and thirst rapidly returned, his urine diminished in quantity, and became every day less albuminous, he rapidly gained strength and flesh, and finally the thirst and swellings disappeared. He left the hospital on the 17th of June, *his urine having for many days been perfectly free from albumen.—Dublin Journal, Sept.* 1834.

---

27. *Passage of the Biliary Calculus from the Gall-bladder into the small Intestines by a fistulous communication.*—Marie, seventy-five years of age, an inmate of the Salpétrière, on account of her great age, enjoyed a perfect state of health, being only subject to habitual costiveness. On the 11th of January, 1834, after a meal she was seized with vomiting, which persisted during the night and for several subsequent days.

On the 14th of January, the date of her admission into the infirmary, her symptoms were as follows:—frequent vomiting of alimentary matters, then of bilious fluid, no headache, very little thirst, acute pains of the epigastrium and right side, slight abdominal tension, constipation. On examination of the colic region some hard stercoral masses were felt. (Cataplasm—lavemens.)

The 15th—copious vomiting of green matter, free from odor, countenance shrunk, eyes sunk, tongue dry, red at the point, abdomen less sensible to pressure, compact rather than tense, skin hot, pulse thready. Cataplasm—oily emulsion.)

The 16th—vomiting, still bilious, without smell; alvine evacuations; acute abdominal pains, pulse scarcely felt, extremities cold, something like a round body which may obstruct the stercoral matters is felt through the abdominal parietes, on the right side.

She died on the 17th.

Dissection.—Dilated stomach descending as low as the hypogastrium; the duodenum in its natural position, being retained there by adhesions with the gall-bladder and liver. The intestinal tunics are sound, but the upper portion of the small intestines is considerably dilated through several feet of extent; the lower portion is diminished in diameter. In the upper part of the small intestine there is an oblong, very hard tumor, as large as a pigeon's egg, which must have prevented progress of the fœcal matters. The tumor was caused by the presence of a biliary calculus. There are solid adhesions between the gall-bladder and duodenum, and an extensive loss of substance bounded by these adhesions allowed a communication between the two cavities. This perforation did not appear to be of long standing. The large intestines contained very hard fæces.—*Arch. General.—London Medical and Surgical Journal.*

VARIETIES.

OBITUARY.

It becomes our melancholy duty to record the death of one of the most distinguished members of the profession of our city. Dr. WILLIAM DONALDSON is no more. In his death science has been deprived of a zealous and able votary; humanity of an untiring advocate, and society of one of its best and most virtuous members. DR. DONALDSON was known by all, and by all beloved; and we pronounce his best eulogy in giving place to the following resolutions, which are the expression of those most competent to appreciate his merits, and who now, in common with his family, and society at large, deplore his loss.

At a special meeting of the Medico-Chirurgical Society of Baltimore, and of the members of the Medical Faculty generally, held on Friday the 16th of January, 1835, in the Lecture room of the Athenæum, Dr. Samuel Baker in the chair, and Dr. Thomas, Secretary,

The object of the meeting having been stated by the chair, the following resolution offered by Dr. G. S. Gibson was unanimously adopted.

Resolved, That a committee of seven be appointed to prepare resolutions expressive of the feelings of this meeting on the occasion of the lamented decease of the late Dr. William Donaldson.

The committee appointed by the chair, consisting of Drs. Gibson, McDowell, Wright, Dunglison, Briscoe, Fonerden and Robinson, after a short absence, returned with the following resolutions, which on motion, were unanimously adopted.

Resolved, That this meeting, deeply impressed with the exalted character of the late Dr. William Donaldson, who to the most unwearied industry and perseverance in the pursuit of the profession to which he devoted himself, added active benevolence, unshaken integrity, and the strictest professional courtesy—do sincerely deplore the loss which they in common with the citizens of Baltimore have sustained by his decease.

Resolved, That this meeting, desirous of paying a just tribute of respect to the memory of their departed brother, and in the performance of a sacred duty to themselves and their profession, do publicly express their profound admiration for the signal virtues of the deceased, which so qualified him for the important duties of his arduous and responsible avocation.

Resolved, Therefore, under the feelings expressed in the above resolutions, that the members of this meeting do wear crape for thirty days.

On motion of Dr. Maxwell McDowell, it was—

Resolved, That a committee of five be appointed to prepare an obituary notice of our late estimable friend, to be recorded in the Archives of this Society.

The chair appointed Drs. McDowell, Buel, Alexander, Stewart and Gibson.

On motion of Dr. A. C. Robinson—

Resolved, That a committee of three be appointed to deliver a copy of the resolutions adopted by this meeting, to the family of the late Dr. Donaldson.

Drs. Robinson, J. B. McDowell, and Gibson, compose that committee.

On motion of Dr. Briscoe—

Resolved, That the proceedings of this meeting, signed by the President and Secretary, be published in all the papers of this city, and in the North American Archives of Medical and Surgical Science.

SAM'L BAKER, Pres't.

RICHARD H. THOMAS, Sec'ry.

DISTRICT MEDICAL SOCIETIES.

Some time since we received a letter from our esteemed friend and correspondent, M. Laborde, M.D. of Edgefield, South Carolina, informing us that the medical gentlemen of that district had formed an association for mutual improvement, and the promotion of the usefulness and dignity of the profession. We have before adverted to the importance of such associations, where their objects are pursued with energy and zeal, and in evidence of what they are capable of accomplishing, we need only appeal to the valuable papers and documents which emanate every year from the District Medical Societies of the state of New York, some of which have been noticed in the pages of this Journal. We hope ere long to see such associations existing in every district or county of the several states, and to behold them every where shedding their salutary influence, in improving the profession, promoting harmony amongst its members, and adding increased dignity to our art. The following extract of a subsequent letter received from our friend, induces us to hope that the effort made in Edgefield, will be productive of very important results.

"I mentioned to you in a former letter, that there was good reason to hope that a spirit of medical inquiry was abroad among the physicians of this district, which would probably lead to an expulsion of quackery from the land, and the establishment of more correct and legitimate principles. I told you of the organization of a district medical society among us, which so far as I learn, was the first medical society that has been formed in the upper districts. We have had no meeting since I wrote to you, but this I hope was not owing to any abatement of zeal in the members, but to the fact that the contemplated meeting would have taken place in the sickliest part of the year, when many physicians would have been prevented by professional engagements from attending it. Upon the whole, I doubt not that there is a higher tone of medical character among us than usual. We read more, think more, and are coming to the conclusion, that no physician can discharge his obligations to his profession and the public, without leaving his profession better than he found it."

ERRATA.—Pages from 343 to 362, have been numbered erroneously, 306 to 322.

EDITORIAL NOTICES.

Dr. Robertson's communication has been received, and shall appear in our next. We regret much that Dr. Chew's paper has been mislaid. This accident has prevented it from appearing in our present number.

Messrs. Carey, Lea & Blanchard have just published "A Treatise on the Influence of Atmosphere and Locality; Change of Air and Climate; Seasons; Food; Clothing; Bathing; Exercise; Sleep; Corporeal and Intellectual Pursuits, &c. &c. on Human Health; constituting Elements of Hygiène; by Robley Dunglison, M.D. Professor of Materia Medica; Therapeutics, Medical Jurisprudence and Hygiène in the University of Maryland." We have received a copy of this valuable work, and propose to give some account of its contents in our next number. In the mean time, we feel it our duty to recommend it, to both the professional and general reader.

Books and Periodicals received within the month.

Handbuch der speciellen Therapie von Friedrich Nasse; Geheimen Medicinalrath und director der Medicinische Klinik zu Bonn 1 & 2 Bande, Leipzig, 1830–32.

Das System der Medicine in umrisse dargestellt und vorzuglich Seinen Zuhôren gewidmet, von Dr. Friedrich August Benj. Puchelt, Grossherz Bad. Hofrath: Professor der Medicin und Director der Medicinische Klinik an der Universitat zu Heidelberg, Bde. 1—4. Heid. 1826, 1832.

Handbuch der Medicinischen Klinik von Dr. Moritz Ernst Adolph Naumann, ordentlich, Prof. der Med. an der Konig. Preuss. Friederich Wilhelms—Universitat zu Bonn. Bande 1—4. Berlin 1829—1834.

Handbuch der Praktischen Arzneiwissenschaft, oder der Speziellen Therapie: nach den Vorlesungen des Herrn Dr. C. A. W. Berends, weiland Konig, Preuss. Geheimen medizinal-Rathes, Prof. und direct. des Med. Klinik. Institutes der Universitat zu Berlin, &c. bearbeitet und mit erganzungen & supplementen herausgegeben von Dr. Karl. Sundelin, Bande 1—9. Berlin 1827—1829.

Die Entzundung und verschwärung der Schleimhaut des verdaungskanales &c. dargestellt von Ferdinand Lesser Doctor und Regementsarzt &c. mit 1 schwarzen und 5 angemalten Kupfertafeln. Berlin 1830.

A Manual of Chemistry, containing a condensed view of the present state of the Science, with copious references to more extensive Treatises, original papers, &c. By Lewis C. Beck, M.D. Professor of Chemistry and Botany in the University of the city of New York, &c. &c. *From Prof. J. B. Beck, M.D. of New York.*

Ueber den Leichenbefund bei der Orientalischen Cholera von Dr. P. Phobus, Privatdoscentem an der Fried. Wilh. Universitat &c. Berlin 1830.

Bibliothek for Læger. Redigeret of dens Medlem C. Otto, M.D. Professor ved Kiobenhavns Universitat, Nos. 2 and 3. 1834. (*In exchange.*)

Revue Médicale Fraçaise et Etrangère; Journal des Progrès de la Médecine Hippocratique, for Sept. 1834. (*In exchange.*)

Journal Hebdomadaire des progrès des Sciences et Institutions Medicales, Nos. 39, 40, 41 and 42, for Oct. 1834. (*In exchange.*)

Journal de la Medécine Homœopathique, Nos. 10, 20. (*In exchange.*)

Journal des Connaissances Medico-Chirurgicales, for December, 1834. (*In exchange.*)

The Boston Medical and Surgical Journal, Nos. 21, 22, 23 and 24, for January, 1835. (*In exchange.*)

The Boston Medical Magazine, Nos. 11 and 12, for January, 1835. (*In exchange.*)

The United States Medical and Surgical Journal, No. 5, for December, 1834, (*In exchange.*)

The Transylvania Journal of Medicine and the Associate Sciences, No. 4, vol. vii. for *Oct. Nov. and Dec. 1835.* (*In exchange.*)

The Western Medical Gazette, No. 8, for Dec. 1835. (In exchange.)

An Address introductory to a course of Lectures delivered in Clinton Hall, New York, *Nov. 8th, 1834.* By Gunning S. Bedford, M.D. Lecturer on Obstetric Medicine, and the *diseases of Women* and Children, in the City of New York. (From the author.)

The Principles of Diagnosis. By Marshall Hall, M. D. F. R. S. &c. Second edition, entirely re-written. New York. Appleton & Co. 1834.

NORTH AMERICAN ARCHIVES

OF

MEDICAL AND SURGICAL SCIENCE.

VOL. I.] MARCH, 1835. [No. 6.

ARTICLE I. *Cases in Surgery, with Remarks.* By N. R. SMITH, M. D. Professor of Surgery in the University of Maryland.

Amputation of the leg.—Of those amputations which frequently occur, none is so difficult of execution—none so tedious—none so frequently followed by secondary hemorrhage—none so often result in the production of a malformed and irritable stump, as the amputation of the leg. Most of those circumstances which render it so, are sufficiently manifest. In this member are two bones of unequal size, and prismatic in form. The soft parts which envelope them are very unequally disposed around them, and much of the muscular substance is so lodged between them, as to be defended from the direct action of the knife. In whatever mode the member may be amputated, the prismatic form of the bones will cause angles to be presented, which necessarily irritate the soft parts that are closed over them. There is in the leg, also, more fibrous tissue and less cellular substance, than exists in most other members.

In consequence of the difficulties which have been experienced in this operation, the methods practised by different operators have been numerous, and no one of them satisfactory, even to the majority of the profession.

At the present time, the place at which the leg should be amputated (provided choice can be exercised) is by nearly all surgeons asserted to be two or three fingers' breadths below the

tuberority of the tibia. The reasons which determine this selection are:—first, the existence of less fibrous, and more muscular, substance than exist in the lower portion of the leg; and, 2nd, the comparative convenience of a short stump below the knee.

To me, however, these reasons appear by no means satisfactory, since they give to this amputation too much the character of an operation *par complaisance,* and regard the ultimate convenience of the patient rather than his present comfort and safety. When the section is performed through the most fleshy part of the leg, the amount of pain inflicted by the incisions must manifestly be much greater than when the ankle is selected, not only because of the far greater volume of the parts, but also because those parts are infinitely more sensitive. The fibrous substance which constitutes nearly all the soft parts of the latter region, is known to possess no sensibility which responds to the stimulus of the knife.

The inflammation and constitutional disturbanee which immediately result from the operation, must also be in an equal degree more serious, since they are proportioned to the extent of the wound in sensitive parts. Painful spasms of those voluminous muscles from which the flap, or flaps, are obtained for covering the extremity of the stump, are much more liable to result. Suppuration, when it occurs, is much more copious and exhausting. A consideration of not less weight, is the greater liability to the occurrence of secondary bleeding when the incisions are made through parts which possess many muscular arterial branches. I have in more than one instance been under the necessity of opening the wound resulting from an amputation below the knee, for the purpose of arresting hemorrhage which I found to arise from the sural arteries. These are the more prone to bleed, because of the traction which is made by the dressings upon the flaps to cover the face of the stump, and the irritation which is made upon the muscles by the angles of the bones; for any species of irritation may be the cause of secondary bleeding. It is also manifest that when the operation is performed thus high, more blood must necessarily be lost at the moment of the operation—more time must be occupied in the application of ligatures, and more foreign matter, in the shape of ligatures, must be left in the wound.

Certainly, therefore, it must be admitted that the operation is *in all respects less* formidable when performed nearer to the *ankle; and if so, it* appears to me that we are scarcely justified

in selecting any other region for the operation, when choice is left to us. An amputation is necessarily always attended with more or less peril to the life of the patient, and the preservation of life should certainly always be the first consideration with the surgeon. Such is sometimes the condition of the patient, that the result of the operation is very doubtful, and then certainly the surgeon should neglect no circumstance which may in the smallest degree contribute to the safety of the individual.

As to the difficulty of effecting union when the flaps are formed of the fibrous substance of the lower region of the leg, I cannot but think it much over-rated. I have experienced but little of this difficulty in those operations which I have executed, either above the ankle, or at the wrist. Some delay in the completion of union would at all events be the worst of the evil. Union once accomplished, the cicatrix of the stump will probably be less sensitive, since it will be less extensive, and the parts will be drawn less tensely over the extremities of the bones.

There is a difficulty, it is true, in adapting to the stump, whether the high or low operation be performed, an artificial member, so that its pressure shall be endured without inconvenience. This difficulty is particularly great, when the patient is one who is compelled to labor, and in such cases, it is usual to apply the artificial member to the knee, thus relinquishing entirely the use of the knee joint. If the artificial member be thus applied, certainly a stump of redundant length is far from being desirable, and in some instances its inconvenience, projecting behind as it does, has even caused the patient to demand, and submit to, another operation at a higher point, as we learn from both Sabatier and Paré.

The history of surgery informs us that Solingen, who was an advocate for the low operation, when practicable, describes, as long ago as 1580, an artificial member so applied to the stump, and imparting its pressure with so little inconvenience, as that the patient could walk nearly as well as with the natural foot. Velpeau also admits the practicability of so adapting an artificial member, that the patient shall walk with but little difficulty, or appearance of deformity. He speaks of two individuals who walked well on imperfect machines.

At all events, it appears to me that we are not justified in

greatly increasing the pains and perils of an operation, already dangerous, for the mere sake of avoiding an inconvenience.

The mode of operating, now most frequently practised upon the leg, (at least in this country, and on the continent of Europe,) appears to be the flap operation, (*methode a lambeaux*,) executed after the method of Lowdham, with a single flap, or that of Vermale, with two. In either case, however, the principal covering of the stump is obtained from the bellies of the grastroenemii muscles, by an oblique incision directed from below upward and forward. The second of these methods is that which I have myself commonly executed, until recently and after having seen reason to be dissatisfied with it.

Objections may be made, it is true, to every operation which can be executed below the knee, and undoubtedly those which obtain against that under consideration are familiar to those who perform it. The rational question is, however, which is least objectionable? The first difficulty which occurs in this method, is that of sustaining the inferior flap in its position against the face of the stump. This must be done by sutures, by adhesive strips, or by bandages—one or all. Sutures are for obvious reasons rarely resorted to. Most surgeons, at the present day, employ adhesive strips, and support them with the bandage. The adhesive strips which are employed for this purpose support the inferior flap by the hold which they take upon the integuments of the superior. The superior flap is necessarily drawn over the sharp angle of the tibia, and although it may be sufficiently long to close over it without any tension, when the lower flap is supported by the hand, yet, when the adhesive strips are applied, such is the weight of the inferior flap and its tendency to retract, that by it the superior flap is drawn with force over the angle of the bone. After having applied the adhesive strips I have sometimes pressed upward, with the hollow of the hand, the inferior flap;—every part of the wound has then been placed at ease; but on removing the hand, the inferior flap has evidently been suspended only by the traction which the strips are observed to make upon the superior flap, a painful tension of which is immediately produced.

It may be said that this can be relieved by the bandage and by the supports which are given to the stump. In a degree it may be accomplished, but not so completely as wholly to obviate the evil. The bandage, indeed, must necessarily in part effect

its object in the same way that the strips do—by the pressure which they make upon the upper part of the leg, although when carefully applied, by no means in the same degree. The support which is given to the lower part of the stump is certainly very important, and never to be neglected; but whoever expects completely to obviate by it the difficulty which I have described, will be disappointed. No permanent support can be given which shall operate like the hand. The pillow, or other soft material which is used, will necessarily change its form, or its position, and whenever the surgeon examines it he will find it necessary to adjust it.

Another very important objection to the method which I am discussing, is the difficulty of effecting union, to any considerable extent, by the first intention. In this mode, we apply the broad muscular surface of the lower flap to the exposed surfaces of the divided bones, and to the small muscles which intervene between the bones. No adequate muscular surface above, therefore, meets, and corresponds to the surface below. We are well aware that union is most easily accomplished when similar tissues meet.

But another evil arising from the form, magnitude and position of the inferior flap, contributes to render union difficult, and to the production of much other mischief. Raised as the flap is, in order to be applied to the stump, its superior surface is necessarily rendered concave; and as by its weight and the inefficiency of its support, it must necessarily bag downward in some degree, a hollow is formed within the wound, opposite to the tibia, for the reception of blood and pus. That which would become the most depending part is thus completely shut up, and no vent given to the fluids which seek to escape. Immediate adhesion of the flap to the face of the tibia is scarcely to be expected, and there pus must of course be deposited, making its difficult way from the wound, if it escape at all, by the lateral angles of the incision. The aponeurotic surfaces which the muscles of the calf of the leg present, cause these fluids to be still more effectually retained. Along these surfaces, also, they are made to infiltrate into the cellular tissue, and to ascend toward the ham, forming sinuses in that region or along the calf of the leg, of an exceedingly troublesome character. I have not long since witnessed this unhappy result of a case in which the operation was executed by myself in this method. I treated the

stump with the utmost care, to prevent infiltration. Sinuses occurred which it was repeatedly necessary to lay open, causing much suffering and exhaustion. The case ultimately terminated fatally, and the result, although the patient was old and feeble, was in my opinion chiefly attributable to the sinusing which took place. This, it is true, might have occurred had another method been practised, but it was the loose lower flap which appeared to receive and retain the pus, and certainly, therefore, it must have assisted to produce the mischief.

Whenever a slough of the integuments covering the angle of the tibia is produced by the traction of the adhesive strips on the upper flap, the means of supporting the inferior flap are greatly impaired, since we have then lost a part of the surface on the anterior part of the leg to which our strips may be applied. If by that time adhesion has not taken place, it then becomes extremely difficulty to maintain the parts in opposition, and the lower flap is liable to fall from the face of the stump, and to present its very extensive surface exposed. Under such circumstances the process of cure is necessarily exceedingly tedious, and the lower flap instead of being a useful covering for the end of the stump becomes now a redundant process of soft parts.

Such are the circumstances which have induced me to abandon the above operation. That which I have since adopted is a modification of that at present performed by Roux, of Paris, and was taught me by my father, the late professor of surgery in Yale College. In this operation, lateral flaps, of nearly equal magnitude, are obtained, and the line of union on the face of the stump is of course vertical.

In executing this operation, I employ a common scalpel of large size. Strong retraction of the integuments being made by the hands of an assistant, and the operator standing on the outside of the limb if it be the left, the inside if the right, applies the point of the middle finger of the left hand, to a point on the posterior part of the leg directly opposite to the shin, and on the middle of the calf; the thumb he applies to a point directly opposite to this, on the shin. At these two points are to be formed the angles of the incisions, and the section of the bones is to be performed ultimately a short distance above them. I now apply *the point of the* knife to the part on which the finger rests on *the back of the limb*, and directing the edge of the instrument

obliquely upward and toward the bone, I make a semi-circular incision, the convexity of which presents downward and outward, and the lowest part of which is two inches or more below the level of the two angles already determined. The first stroke of the knife divides merely the integuments; the next, carried close along the upper border of the retracted skin, divides the muscles in the same oblique direction. The hand being now passed over the limb is to be applied to the point where the first incision began, and the second flap is to be formed precisely in the same form as the first, the incision meeting the other at the angle on the shin. The flaps are now to be retracted—the interosseous ligament and muscles are to be divided by the same instrument—the muscles are to be detached for a suitable distance from the bones, and the integuments from the tibia, and the section of the bones is to be performed at the plane indicated above.

We shall thus have obtained two lateral flaps, of nearly equal size, which will also oppose to each other homogeneous surfaces. These may be brought together over the surface of the bones with but little effort, and kept in apposition with but little painful constraint. There is nothing constantly operating, as does gravity in the other case, to separate the flaps. It might be supposed that the extremity of the fibula on the outer side of the leg would seriously irritate the corresponding flap. This I have not observed to be the case, but were it apprehended, the extremity of the fibula might be cut obliquely and a little above the level of the section of the tibia.

The inferior angle of the line of union from this amputation, will necessarily be the most depending part of the stump. Any fluids therefore which may be effused will certainly not accumulate in the wound, but will readily issue from this angle, being conducted by such ligatures as are drawn out at this opening. The closure of the wound by the lateral traction of the adhesive strips, so far from drawing the integuments tensely over the angle of the tibia, will rather relax the skin of this region, and I have thus had no difficulty in preserving the coverings of the bone.

My experience thus far in the use of this method, causes me to decidedly prefer it to any which I have used, or seen employed. It is my design, however, to report the results of such cases as may occur in my practice.

Case of lacerated wound of the thumb;—Re-union of the severed member under unfavorable circumstances.—I was a few days since called in consultation by a medical friend, Dr. Whitridge, to a case in which a frightfully mangled wound of the hand had been inflicted by a large circular saw. The patient was a mechanic of about forty years—a man of tolerable health, and temperate habits. The instrument had struck the thumb on its dorsum, within a third of an inch of the joint of the first phalanx and metacarpal bone, and had completely severed the organ from the hand, with the exception of a small slip of integuments on the side towards the palm. The thumb had dropped upon the palm of the hand—was cold and bloodless. The dorsum of the hand had also suffered much laceration, but the carpal bones were not injured. The wound of the soft parts and bone of the thumb were very rough, and apparently most unfavorable to union. We hesitated a moment whether to attempt the preservation of the member; but as the patient was a mechanic who would have been almost wholly disabled by the loss of the member, we soon determined to attempt its preservation, although entertaining but little hope of final success. We adapted the parts as accurately as possible, and closed the wound by four interrupted sutures, sustaining them with adhesive strips, lint, and a narrow roller.

While we were inserting the sutures, blood sprung from a wounded artery, and it become necessary to apply a ligature. On searching for the bleeding vessel, we were agreeably surprised to discover that the blood flowed from the member below the wound. It was therefore manifest that the digital artery, which courses along the inner border of the thumb just beneath the skin, was included in the integuments which had escaped injury. This circumstance of course gave us new courage in regard to the preservation of the member.

On the fourth day, the dressings being foul with putrid blood and pus, we were obliged to change all except the adhesive strips, which we carefully left. We discovered no evidence of the death of the member, but, on the contrary, there was sensibility along the inner side of the thumb, and warmth in the whole organ. On the second day from this we repeated the dressing, and then removed the adhesive strips, using great care not to disturb the position of the thumb. It was now sufficiently manifest that vitality was preserved in the entire member,

and that union was being effected at several points. The skin on the outer side, below the wound, showed an inflammatory blush, and when I pressed it gently with the point of a probe, I pressed the blood out of the vessels and rendered it pale; but on removing the instrument, the reflux of the blood was instantly seen.

The case has since been progressing favorably. Several small fragments of bone have been discharged; but complete union of the soft parts has been established. But little power of motion has yet been recovered, and it is probable that this will forever remain in some degree defective.

Case of wound of the Liver.—Some surgical writers incline to the belief that wounds of the liver are necessarily fatal, owing to acrid quality of the secretions of the organ which, when the substance of the organ is wounded, must be poured, in greater or less quantity, into the cavity of the abdomen. The following case shows the fallacy of such a conclusion, and exhibits the symptoms which arise from such an injury.

In 1829, I was called in haste to Mr. Richardson, of Old Town, a tavern keeper, who a few minutes before had been stabbed by a maniac, beneath, and a little on the right, of the extremity of the ensiform extremity of the sternum. The instrument with which the injury had been inflicted, was a dagger made from a common table knife by grinding off the back and edge to an acute point. I was associated in the treatment of the case with my friend Prof. Hall. The only examination of the wound which we deemed it prudent to make, was made by introducing a smooth probe into the orifice, and allowing it to penetrate (rather by its own weight than by any force) as far as it would pass. This was about two inches, and it was therefore manifest that, although Mr. R. was somewhat corpulent, the instrument must have penetrated the walls of the abdomen. But in regard to this, the symptoms which had resulted, left no doubt in our minds. The patient's countenance was pallid and anxious—his breathing short and quick—he complained of great pain and sense of fulness and distension in the region of the wound—his pulse was a hundred and forty in the minute, frequent and small. We found him on his bed, but his trunk was supported, almost erect, by pillows, and he found it impossible to recline for a moment, without aggravated pain and difficulty of breathing. It should be remarked that, at the time of the infliction of the wound, the stomach was empty. Had it been

otherwise, it is probable that the stomach, and not the liver, would have been the suffering organ. At it was, there was no vomiting or other symptom particularly affecting the stomach.

At the first moment of our arrival the patient was therefore in no condition for active treatment. Re-action, however, soon occurred in a degree to justify the use of the lancet, and blood was pretty freely taken. An anodyne had been previously administered. In the evening, we found our patient nearly in the same condition, and blood was again taken, and a fomentation applied to the external wound.

On the morning of the second day, other symptoms remaining as before, the skin had assumed very strongly the hue of jaundice, as had also the eyes. There was pain and tenderness in the region of the liver, and there was distressing pain in the right shoulder. Blood was again taken from the arm—a mild aperient prescribed, and the fomentation continued.

On the fourth day, the unpleasant symptoms began to yield, and our patient was soon restored to perfect health.

In this case, the wound having evidently penetrated the cavity of the abdomen, and the instrument being extremely keen, it must have inflicted injury upon some viscus, and the locality and direction of the wound, the stomach being empty and collapsed, would be nearly sufficient to shew that the organ reached must have been the liver. But the jaundice which followed, together with the characteristic pain in the shoulder, dispel all doubt in regard to the nature of injury.

Effects of Strychnine locally applied in Paralysis.—Two years since, a seaman was received into the Baltimore Infirmary, laboring under paralysis of the exterior muscles of the left leg. He stated that, some days before, he had received a blow on the anterior part of the thigh, which had produced contusion and consequent soreness of the muscles. The immediate effects of the injury soon passed away, but there supervened an increasing sense of weakness in the member, which soon terminated in paralysis. The muscles on the anterior part of the thigh now felt soft, relaxed, and flabby. When the patient carefully kept the leg perfectly extended upon the thigh, he was able to bear his weight upon the member; but whenever he flexed it in the slightest degree, in attempting to walk, the *leg was instantly* doubled under him, and, if he trusted to it for *support, he fell.* When he was seated in a high chair, and the

leg allowed to hang downward, he had no power to swing it forward.

This man had been laboring under some slight gastric disorder which appropriate remedies had relieved. I could detect no evidence of spinal irritation. The local affection appeared to exist alone. Stimulating frictions were resorted to with but little effect. The cold douche was also tried with as little benefit. I then directed a small blister to be applied upon the anterior part of the thigh, near its middle. When vesication had been produced, the cuticle was removed, and one fourth of a grain of strychnine applied to the denuded surface. This was done in the evening. In the course of that night the patient was waked by involuntary spasmodic twitches of the diseased muscles, occurring at frequent intervals, and rendering it impossible for him to keep the limb quiet in bed. This continued at intervals during the night. In the morning, when the patient rose, he found, to his surprise, that he had now the power of extending the leg upon the thigh, and of securely standing and walking, although the member had not recovered all its natural power. On the following evening I directed the application to be repeated. The same involuntary movements did not recur, but further improvement took place in the contractile power of the muscles. This improvement, without further resort to the remedy, continued to progress, and in a few days the natural strength of the member was perfectly restored.

The result of this case has induced me, in several cases of local palsy, to resort to the same remedy, but I have by no means been equally successful in such. In one case, however, of paralysis of the left arm and fore-arm, partial success was obtained. The same involuntary twitches of the muscles took place in this case, attended with some pain.

Little benefit can be expected from this remedy where organic lesion may be presumed to exist in either the brain or spinal cord. There are undoubtedly cases of paralysis in which, from morbid nutrition, the proximate cause of the disease is located in the muscular fibre, its vital quality of contractility being impaired. It has always appeared to me that pathologists far too generally overlook the susceptibilities of the muscular system. Through the nerves is conveyed the stimulus which excites the muscles to contraction; but in the latter organs there resides the important vital property which responds to the stimulus of the

nerves. I believe that no intelligent physiologist of the present day doubts the existence of a vis insita musculorum; and if the existence of such a quality in the muscles be admitted, diseases of the motive apparatus may certainly arise from one of two sources. Either the stimulus conveyed by the nerves may be morbid or deficient, or the contractility of the muscles may be morbidly modified. This property of the muscles is bestowed upon these organs by the exercise of healthy nutrition, and if, in consequence of defective nutrition, the contractility of certain muscles ceases to be conferred upon them, paralysis will as certainly follow as if the nerve, which stimulates those muscles, had been divided. The nerves would stimulate as ineffectually a muscle deprived of its peculiar vital property, as they would cellular tissue, or a ligament. The strychnine in those cases in which it is successfully employed probably influences powerfully the contractility of the muscles, and undoubtedly was beneficial in the case which I have related by aiding to restore that quality.

On the inverted Toe-nail.—Although at first thought, this disease may appear to be one of trivial character, and although it is one which never threatens life, yet I know of but few which create a greater amount of suffering—so frequently does it occur, and so severe is the distress which it often occasions. I have, indeed, in some instances, known it to be attended with such extreme irritation as to seriously impair the general health; and I have known amputation to be improperly resorted to for its relief.

Those writers who have noticed this disease have uniformly described it as an actual inversion and growing downward of the margin of the toe-nail. Having noticed carefully, in my own person, the causes which produce the disease, and the mode of its production, I am satisfied that the commonly-received explanation is erroneous.

These diseases would never occur to those who wore neither boots, shoes, nor stockings. Indeed it never occurs to the negroes of this section of the country, who generally wear no shoes except during the winter season. The shoe or boot, then, (but sometimes the stocking) is the remote mechanical cause of it. The mode in which it operates is this:—the shoe, being, as it *usually is, too narrow* to allow the anterior part of the foot to *expand when it* receives the weight of the body; or the heel of

the shoe being so high as to cause the foot to be thrust forward into the narrow part of it, the toes are cramped and compressed upon each other. The great toe particularly, receiving the greatest pressure, is forced outward and against the second toe, and is made partly to mount upon it. The second toe, being smaller, presses not directly against the side of the large one, but partly under it, pushing the soft parts upward, and doubling them over the outer edge of the nail. A species of inflammatory hypertrophy takes place in the extremity of the toe from the continued irritation of the nail; and the soft parts, which are thus reflected over its border become more voluminous than natural. I have often thus seen it doubled quite over to the middle of the top of the nail. The end of the toe itself also becomes permanently swelled and expanded, and rises anterior to the angle of the nail. The pressure of the shoe on the top of the nail, no doubt assists in some degree the production of the disease.

Very rarely does the disease occur at the inner margin of the nail, as it certainly would as frequently do, if the common explanation of the production of the disease were correct. When it does there occur, I am confident that it arises from the soft parts being pressed upwards from below, and the nail being resisted above.

When the flesh is pressed upon the edge of the nail, ulceration will necessarily result, and pus is secreted. Occasionally blood flows. Redundant spongy and irritable granulations occur and increase the tumor of the parts, which rise above the margin of the nail and give to it the appearance of having grown into the flesh, and of being deeply buried in it.

The elastic pressure of the stocking more frequently inflicts injury upon the toes than is generally supposed. The material is so soft and yielding, that few suspect the evils of tight stockings as well as of tight shoes. The continued pressure of a substance as soft even as the texture of a stocking, is capable of greatly modifying the form of parts. I was not long since consulted in a case of dislocation of the lower jaw, in which the character of the injury not being recognized, no reduction had been effected. The displacement had existed nearly a year. Surgeons are aware how difficult it is for the patient, after dislocation of the jaw, to close the mouth, and retain the saliva, even when inflammation has passed away. Strong contraction

of the lower part of the orbicularis is produced for this purpose, and almost continued pressure is made upon the lower incisor teeth. In this case, by the pressure thus made, the teeth, which before had been natural and strong, were thrown horizontally backward into the mouth.

Upon one occasion, when suffering in my own person from the irritation of the inverted toe-nail, I changed my shoes for those which were abundantly wide at the toe, but still I felt the same painful compression of the toes, when standing or walking. Further attention to the cause shewed that it was the continued pressure of the elastic stocking.

For want of proper attention to the cause, as I believe, the surgeon is often long baffled in the treatment of this disease. So often are the ordinary means defeated, that Dupuytren has recommended and practised an operation of great severity for its radical cure. He thrusts the blade of a pair of scissors beneath the anterior margin of the nail, near its centre, and carrying it parallel to the lateral border, reaches the root. He then divides the nail, and seizing the portion concerned in the disease with forceps, tears it away. This is said by the surgeon not to be particularly painful, but I think it will require more than the assurance of the operator to convince us that it is not agonizing. Such an operation will undoubtedly be effectual, but besides its cruelty, it impairs the integrity of the member. The toe-nail is by no means a superfluous appendage, and therefore it is desirable to preserve it.

In the treatment of this affection, let the surgeon first carefully consider the cause, and endeavor to effect its removal. This I have accomplished by interposing between the toes, at their roots, a cylinder of soft, rolled linen—perhaps a third of an inch in diameter, or as large as may be necessary to keep the extremities of the toes from pressing upon each other. A shoe is to be worn which shall give abundant room for the toes to expand, but furnish snug support to the instep; for a shoe which is altogether loose upon the foot, will allow the toes to be pushed forward upon the toe of the shoe. The patient must also wear stockings which shall not in the slightest degree compress the toes. If the disease be not far advanced, the parts being relieved of the cause, will soon spontaneously assume their healthy condition. But if there be morbid granulations rising, in which the border of the nail is buried, and this last appears to be creat-

ing great irritation, it is necessary to gently raise the border of the nail by seizing the corresponding anterior angle with forceps, and then, with delicate scissors, the free lateral margin which will be found macerated, white, soft, and brittle, should be cut away. To the granulations the nitrate of silver may be applied. The toe-nail should now be scraped thin upon its dorsum, and the patient should be directed every day to lift the border of the nail. I have found no advantage in thrusting anything under the nail to keep it raised, but have seen such substance cause much irritation.

In confirmation of the correctness of our pathology and treatment of this distressing affection, I may add that, when patients laboring under it are by other disease confined to their beds, without wearing stockings, the disease invariably disappears, and does not recur until they have been for some time on their feet.

Art. II. *Case of Fracture of the Spine.* By Francis M. Robertson, M.D. of Augusta, Georgia.

On the 6th of October, 1834, at four o'clock, P.M. I was called in haste to visit a negro man, aged between thirty-five and forty, affected with complete paralysis, and insensibility of every part of the body, excepting that portion, above a line drawn around the neck, just on a level with the clavicles, and a small part of the tip of each shoulder. Respiration was carried on entirely by the diaphragm, though calm and regular;—countenance serene; voice unaltered; and mental faculties perfect. On inquiry I found that he had fallen through a dray, while the horse was in a slow walk, and in descending, the back of his neck struck one of the cross bars of the dray, which afterwards passed over him without injuring any other part of the body. The penis was perfectly erect. No external injury could be observed on the back of the neck, or any depression in that region. He complained of severe pain whenever his head was moved, or he was brought into the sitting posture. The paralysis and insensibility were complete from the moment he was taken up. In whatever position his hands or feet were placed, they remained as though they belonged to a dead subject rather than a living being; and his skin, in every

part below the line above mentioned, might be punctured until the blood flowed, without producing the slightest pain or sensation whatever. Although his legs were completely extended, he imagined that they were drawn up, and would continually cry out to have them extended. The pulse was oppressed. He was suffered to remain quiet until nine o'clock, at which time I again visited him. During my absence, contrary to my directions, but at his request, the nurse had suffered him to be turned on his abdomen, which was nearly fatal to him before they could get him back to his former position, in consequence of impeding the motions of the diaphragm, by which respiration was alone maintained. Reaction had taken place, and his pulse was full and bounding,—v. s. 24 ʒ. and a cathartic administered.

7th—eight o'clock A. M. No alteration; paralysis and insensibility the same; penis still erect; passed neither urine or fœces during the night; the region above the pubis does not appear to be at all distended, consequently I did not introduce the catheter. Ordered an enema of salt and water.

Twelve o'clock, M. The enema produced a copious passage, which came away involuntarily, without the patient having the slightest knowledge of the fact; penis still erect; passed no urine yet; region above the pubis not distended. Pulse has become more full and incompressible.—V. S. 16 ʒ.

Applied the vegetable caustic as nearly over the fourth and fifth vertebræ as could be ascertained. He complains of severe pain at this part of the neck when his head is moved in the slightest degree. *Quarter before four*, P. M. Condition unaltered—complains of the caustic, which was applied just above the line of separation between the sensible and insensible parts. Introduced the catheter, and turned him on his side, but no urine flowed; a few drops merely following the instrument when withdrawn. The operation was repeated, but with the same result. He experienced no pain whatever on the introduction of the instrument, and observed that he was entirely unconscious of what I was doing.

Nine o'clock, P. M.—Pulse much weaker, and breathing rather spasmodic. Complains of a continual fainty sensation; desires to be taken into the open air, and makes the nurse fan him *incessantly;* body and extremities quite warm; penis still erect. *Introduced the* catheter again, and about an ounce of urine, of

the natural color, came away. The patient continued to sink, and expired at 1 o'clock on the same night, having survived 33 hours from the time he received the injury. His intellect was unaltered to the last.

Examination of the body ten hours after death.—When the subject was turned on the abdomen, preparatory to commencing the examination, about a pint of florid blood and water came from the mouth. The integuments over the back of the neck appeared perfectly sound, with the exception of the eschar produced by the caustic. On cutting down to the muscles, they were found to be much contused, and even lacerated in some places. A large quantity of black blood flowed from the part. On cutting down to the vertebræ, the spinous process of the fourth was found broken off from the body. It was separated from the fifth, and driven to the right side, showing a dislocation and complete rupture of the posterior ligaments. The index finger could be easily passed into the opening between the two vertebræ, and the spinal marrow felt. A profuse flow of black blood took place from this opening, and continued to trickle away for some time after the wound was stitched up. The dissection was carried no further, as the examination was made clandestinely, and we were pressed for time. I was assisted in the examination by my friends Doctors Patterson and J. E. Bacon, who saw the case with me during its progress. The results of a further examination would doubtless have been very interesting, as the relative position of the bones and other important parts could have been more clearly ascertained. It was impossible, however, for the reasons above stated.

Augusta, Jan. 17th, 1835.

ART. III. *Case of Spontaneous Salivation, with reflections.* By S. CHEW, M.D. of Baltimore.

IN 1830, while residing in Calvert county in this state, I was called to attend Mrs. B., who had been suffering for two or three days from a severe attack of remittent fever, the endemic malady of the district. I found her laboring under the ordinary phenomena of the grave forms of that disease,—an accelerated and irritated pulse, great uneasiness of the stomach, intolerance of the least pressure over the scrobiculus cordis, and an intense

hyperæmia of the tongue and fauces. In addition to these symptoms, she was harassed by a profuse ptyalism. She experienced a brassy taste in her mouth; there was a continual and copious flow of saliva; and the peculiar fœtor of the breath and perspiration, which is the common effect of mercurialization, was strongly perceptible immediately upon entering her apartment.

As mercurial salivation is a favorite expedient of the domestic practitioners of the county, I concluded that the lady had been subjecting her constitution to the customary discipline. Upon inquiring, however, I was assured, that she had taken no preparation of mercury, and indeed no medicine of any kind whatever. She stated, that seven months previously, she had been attended during an attack of bilious fever, by a physician, who found it necessary to give her a very large quantity of calomel, with the effect of producing a free ptyalism. From her disease, and from the consequences of this rough mode of medication she gradually recovered, and had enjoyed tolerably good though not robust health, until a few days before I was requested to see her. She was at that period attacked by the fever for which I attended her. On the day after its incursion, the ptyalism made its appearance, though her mouth had been, as she thought, perfectly well for more than six months. Her gums and fauces had been certainly entirely free from any manifest indication of disease, and there had been nothing abnormal in the action of the salivary glands.

The ptyalism was the only remarkable feature in her situation, and by proper treatment she was speedily restored to her ordinary state of health.

To assign the true cause of this salivation appears to me to be somewhat difficult. Against the belief that it was occasioned simply by an extension of inflammation or irritation from the gastric portion of the alimentary mucous membrane, to the salivary glands, arises the obvious objection, that, if such were the case, similar instances would be far more frequent than they are found to be. I am, moreover, uncertain whether the fœtor ordinarily accompanying ptyalism occasioned by mercury ever occurs in those cases which are produced by other agents. In 1831, I attended a child laboring under an attack of salivation, (the ptyalismus mellitus of the nosologists,) which had the appearance of being perfectly idiopathic. It was evidently not caused by the process of dentition, and not apparently connected

with any pathological condition of the stomach. In this case, though the flow of saliva was abundant, for ten days or a fortnight there was never any perceptible fœtor. Dr. James, the inventor of the celebrated febrifuge nostrum, asserts, that his powder had in several instances excited copious ptyalism, which was always wholly free from any offensive effluvium;* and many cases of a like character are recorded by other authors. From the peculiar odour attending Mrs. B.'s salivation, I should therefore be inclined to attribute it to the powers of mercury, and consequently to consider it as a recurrence of the ptyalism from which she had apparently recovered more than six months before. It is not clear whether mercury had been actually present in her system during the whole of this long period; or whether, after its extension, its effects had continued in the form of a predisposition on the part of certain organs to a peculiar mode of action, upon being aroused by a sufficient exciting cause. What influence, if it was present, had kept its energies so long quiescent; in what part of the body they had been encamped; and in what manner they were finally awakened to activity, are questions which occur more readily than their solutions. That in post mortem examinations quicksilver has been detected in the bile, in the bones, in various secretions, and in various organs of those who have been subjected to its violence while living, we are assured by numerous and respectable authorities. The lady whose case I have detailed, had taken an enormous quantity of calomel. It had probably produced a chronic impairment of the functions of nutritive or vegetative life, in consequence of which the vigor of the absorbents had been gradually and greatly diminished. Upon the increase of activity communicated to these vessels by the excitement of the initial stage of fever, absorption was resumed with augmented energy, a portion of the mercury heretofore latent was taken up, and the glands of the mouth became one of the emunctories for its final elimination from the constitution.

In conclusion, I would remark, that Dr. Sylvester has recorded, in the Medical Observations and Inquiries,† two cases, which he considers as proving that mercury is sometimes retained in the system for a very long period in a state of comparative inaction. In one of these instances, a salivation is said to have

*Medical Transactions, vol. 1. †Vol. 3, p. 241—245.

returned after an absence of nearly four months; in the other, after a still longer suspension of five months. Neither of them, however, is entirely satisfactory; for in neither did the ptyalism recur until a fresh quantity of mercury had been administered.

ART. IV. *Clinical Reports, with Reflections.* By the EDITOR.

WITH some of the magnates of the profession, who find no interest in any thing pertaining to medical science unless it bear upon it either the stamp of novelty, or a character out of the usual course of things, the following cases and reflections will doubtless be deemed of little value. As there may be others, however, who regard every pathological or therapeutical fact, or principle, of sufficient importance to be treasured up, we do not hesitate to fall in with their sentiments, and shall consequently, regardless of the contrary opinion, make a record of the cases, with such remarks as may be suggested by them.

CASE I. *Diarrhœa—Ulceration and Enlargement of the Intestinal follicles—Hypertrophy of the liver and obliteration of the gall-bladder—Chronic peritonitis, &c.*—Samuel Otis, aged 52, was admitted into the Baltimore Infirmary, March 24th, 1834. He represented that he had been sick several days, and had taken several cathartics. On the day previous to his admission he was seized with a profuse diarrhœa, by which his strength was very much reduced. When he entered the Infirmary he was almost pulseless; his extremities were of an icy coldness, and his general aspect indicated great distress. Warm wine whey was freely administered, and a large sinapism was applied to the abdomen. *7 o'clock* P.M. Pulse scarcely perceptible—extremities still cold—has frequent calls to stool, and passes copious watery evacuations. Pulv. Doveri, gr. xv. creta prep. ʒ ss. Wine whey continued—sinapisms to the extremities. Enema of starch with Tinct. Opii. ʒ iij. Midnight, pulse fuller—extremities still cold—diarrhœa continues unabated. An enema composed of starch, with Acetat. Plumb. ℈ i. Tinct. Opii. ʒ iij. Fresh sinapisms to the abdomen and inferior extremities. 1 A.M. The enema has had no effect in controlling the diarrhœa. Pulv. Opii. gr. iv. Acet. Plumbi. gr. iij. *Submuriat. Hyd.* gr. ij. every two hours.

25th. Slight amelioration; partial reaction has taken place. The diarrhœa checked after the second powder. Strong wine whey to be administered freely. 7 P.M. not so well—pulse beginning to fail. Warm brandy toddy was given, and sinapisms applied to all the extremities and to the abdomen without effect. He died at 12 o'clock.

Autopsy.—The mucous membrane of the intestines, especially of the ileum, was extensively ulcerated, and its follicles were very much enlarged. The liver was enlarged, and its granules presented that preponderance of yellow, which is observed in what is called *nutmeg liver. The gall-bladder was obliterated, its place being occupied by condensed cellular tissue.* The peritoneal coat of the liver was thickened; the spleen soft and enlarged, and the parieties of the intestines attenuated. The aorta, from the origin of the cœliac artery to its bifurcation, was ossified, and the latter vessel and its branches, as well as the emulgents, were in the same condition. (*Reported by Mr. Alexander H. Bayly.*)

Remarks.—In a therapeutical relation, this case presents but little interest. The mischief had already advanced too far to be controlled by the powers of art, before the individual entered the Infirmary, and the remedies employed, consequently, exercised but little influence in staying the fatal termination. Considered in relation to the pathological phenomena observed during life, and the appearances discovered after death, the case would possess great value, were it not that the previous history is too imperfect to enable us to draw any very satisfactory inferences relative to the origin of the disease, its progress, and duration. All the circumstances, however, which were revealed by the post mortem examination, render it probable that the malady must have been of long standing. This conclusion is corroborated by the condition of the gall-bladder, liver and peritonæum, as well as by the state of the mucous membrane of the intestines. But what was the primary seat of the disease? Was it the peritonæum? We think not, because a simple implication of that structure, could not involve such extensive changes in the structure of the liver, not to say any thing of the state of the mucous membrane. Did it originate in the parenchyma of the liver itself? We do not think it probable; for while such a conclusion would reconcile itself with the lesions exhibited by that organ, it would be inadequate to expl-

either the obliteration of the gall-bladder, or the ulceration and enlargement of the follicles of the mucous membrane of the intestines. We think it highly probable, therefore, that this latter structure was the part primarily affected,—probably the duodenal portion of it. It is to be regretted that this part of the alimentary canal was not examined with sufficient attention. It is a common occurrence for irritation originating in the mucous membrane of the stomach and duodenum to be transmitted to the granulated structure of the liver, and to the lining membrane of the gall-bladder, through the internal tunic of the excretory vessels, which is a mere prolongation of the mucous tissue of the alimentary canal. Taking this route, therefore, in the present case, adhesive inflammation was excited in the gall-bladder, by which it was obliterated, and the primitive radicles of the hepatic duct, which form so many minute cul de sacs in the centre of each granule of the liver, having the capillary blood vessels distributed upon them, being likewise involved in the same irritation, it can be easily conceived how this hypertrophy, attended with augmentation of yellow substance, was induced,—that yellow substance merely consisting of the delicate blood vessels, and their connecting cellular tissue, &c. which are spread upon the closed extremities of the radicles of the excretory duct. The liver once involved, the inflammation might easily extend to the peritonæum; and an extension of the irritation down the intestinal canal would naturally induce the ulceration and enlargement of the follicles, and the consequent diarrhœa by which the individual was destroyed.

Case II. *Muco-peritonitis—Extensive ulceration and thickening of the pyloric orifice of the stomach, and ulceration of the mucous membrane of the ileum.*—Philip Malay, aged 30, entered the Baltimore Infirmary, Sept. 6th, 1834. He reported that he had been laboring under fever about four weeks, and had taken several doses of calomel and jalap. The symptoms at the time of his admission were extreme tenderness and pain on pressure over the whole abdomen. Even the slightest touch occasioned acute pain, and excited a kind of spastic action of the abdominal muscles, which were constantly contracted and rigid. The stomach was irritable, and the skin hot and dry; but the tongue was pale and moist, and did not indicate much irritation of the mucous surfaces. The pulse was weak and frequent, and the bowels constipated. Cups were applied to the abdomen,

followed by a large emollient poultice. He was directed to have a table spoonful of castor oil, and to take effervescing draught every two hours.

7th. On the morning of this day he appeared much relieved. The tenderness of the abdomen was diminished; the tongue was natural; the skin cool and covered with a free perspiration, and the pulse was stronger and not so frequent. Cups and poultice to the abdomen were repeated; an enema was administered without effect, and the effervescing draught continued. 5 *o'clock*, P.M. He was taken with a vomiting of feculent matter; his extremities became cold,—his whole body was covered with a cold clammy perspiration; and the pulse became so weak and rapid as to be scarcely perceptible. Sinapisms were applied to the abdomen and extremities, and a turpentine enema was administered, which brought away an evacuation, followed by considerable relief. 8 *o'clock*. Cups and a blister were applied to the abdomen, and effervescent draught was prescribed at intervals.

8th. He was found no better. The following portion was directed for him every two hours:—℞ Tinct. cinchon. comp. Spts. Æth. Nit. āā ʒss. At 7 *o'cock*, P. M. he was worse. He was directed to have Ol. Terebinth. ʒ ii. every two hours. He however continued to sink gradually until four o'clock, A.M, when he expired.

Autopsy.—On opening the abdomen, the colon and the principal convolutions of the small intestines were found of a high red color, and covered with a recent viscous lymph deposite, which had particularly collected in the direction of the infractuosities of the intestinal convolutions, where it had already assumed a reddish vascular appearance, and partially agglutinated them together. The omentum was thickened, and adhered to the stomach, liver, spleen and colon. The peritonæum was covered in several places with granulations as large as a pea, which were of a gelatinous consistence. The stomach was slightly inflamed, and its pyloric orifice was wholly occupied by a large ulcer and extensive thickening of the surrounding walls. The lower part of the ileon was intensely inflamed and extensively ulcerated, and there were two strictures in the colon.—(*Reported by Mr. Thomas A. Healey.*)

Remarks.—In this case we have an example of inflammation originating in the mucous membrane of the alimentary canal,

and extending itself to the peritonæal covering of the tube. The large ulcer, and the extensive thickening, which occupied the pyloric orifice of the stomach, were probably the result of chronic disease; but the intense inflammation, and the numerous and extensive ulcers which were found in the ileum, were intimately associated with the attack of fever, under which the patient had been laboring for four weeks. This affection of the mucous membrane of the ileum seems, indeed, to constitute the chief anatomical character of the form of fever in question. In this case, the membrane was completely riddled with ulcers, many of them extending so deep as to nearly give rise to perforation of the intestine. This was the cause of the development of the peritonæal inflammation, which was most violent at those points corresponding to the seat of the principal inflammation of the mucous membrane. If the individual had survived a few days, complete perforation would probably have taken place, or that event would only have been prevented by the extensive adventitious adhesions formed between the convolutions of the intestines, which might have presented an artificial barrier to the escape of the contents of the intestine. The constrictions of the colon were likewise associated with inflammation of the corresponding portion of the peritonæum. The abdominal tenderness in this case, was exceedingly great, and that feature, together with the spastic contraction of the abdominal muscles excited by pressure, clearly indicated peritonitis. Hence, although the individual was much exhausted by previous disease, as active an antiphlogistic course as was compatible with his constitutional energies, was instituted and persevered in, until the vital powers began to give way. It was only when the pulse began to fail, that the turpentine was resorted to; but it, as well as the previous remedies were of no avail. The disease had already advanced too far. Appropriate treatment had been too long neglected, and as the case had not been met by an active antiphlogistic course at first, it could not be rendered available after the structure of the organs had become so extensively implicated.

Case. III. *Jaundice—inflammation and pulpy disorganization of the mucous membrane of the stomach.*—The subject of this case was a young man, aged about 25, by trade a watch *maker,* whose body we were requested by a medical friend to *examine a few* years ago. His habits had been intemperate, and

the affection of which he died had been probably brought on by the immoderate use of ardent spirits. His principal symptoms had been, an unconquerable irritability of stomach, and almost incessant vomiting, which nothing could control. He had also complained of pain in the hypochondriac and epigastric regions, and the whole skin and conjunctiva were of an intense yellow color.

Autopsy.—The omentum was highly red and injected,—the intestines presenting externally something of the same appearance. The mucous membrane of the stomach was intensely inflamed, and at several points, was softened, and detached to the extent of an inch or more. It also exhibited several dark colored spots, and the capillary veins were distended with black blood.—The organ contained a small quantity of a brownish colored fluid, mingled with minute fragments of disorganized mucous membrane. Some of the same kind of matter had been ejected at different times, by vomiting. Nothing was found either in the liver or gall ducts to account for the jaundice; the gland only being somewhat congested. The gall bladder was filled with thick viscid bile, having the aspect of pitch, but the ducts were perfectly pervious. The pancreas was considerably enlarged and indurated, but the spleen was healthy.

Remarks.—This case strongly corroborates a pathological principle which has received extensive sanction in modern times;—that there are many cases of jaundice in which the disease does not originate in the liver or its excretory appendages, but in the mucous membrane of the stomach and duodenum. To this fact, promulgated by Bichat, and confirmed by the observations of Broussais and Andral, we have had repeated occasion to advert in the course of our editorial labors, and it cannot be too often repeated. It was formerly too much the custom to consider jaundice merely as a consequence of mechanical obstruction of the excretory ducts of the liver, and to treat it by emetics, cathartics, resolvents and antispasmodics—to emulge, as it has been expressed, the biliary ducts. If the disease proceed from an extension of irritation from the mucous membrane of the alimentary canal to the liver, along the lining membrane of the common duct and the radicles which form it, the impropriety of this practice is too glaring to require comment; and that it does originate in this manner, in some cases at least, is fully proved by this case, and many others of a similar charac-

ter which have been reported. Here the mucous membrane of the stomach was inflamed even to the extent of disorganization, yet there was no perceptible organic disease of the liver on any of its appendages. In such a case, emetics and cathartics could scarcely fail to prove mischievous; and antispasmodics and resolvents would be altogether inadequate to afford relief. The jaundice was a consequence of acute gastritis excited by intemperance, and could only be successfully combatted by such means as would be calculated to subdue the primary affection.

While on this subject, we will take occasion to remark, that we have seen several cases of jaundice attended with much febrile disturbance, and strong evidences of gastro-enteric inflammation, in which the patient became speedily affected with a profound comatose state, from which nothing could rouse him. Associated with the febrile symptoms, there was great thirst, epigastric tenderness, constipated bowels, nausea and vomiting; the tongue at first being red and contracted, but soon becoming dry, brown and scabrous, and assuming all those characters which it presents in typhoid fever.—With this change of the tongue, the comatose symptoms generally set in, attended with muscular twitchings, and other indications of impaired or disturbed innervation. We have recently seen allusion made to this form of disease in several of the journals, with reference to its extremely fatal character. It seems to be an intense gastro-enteritis in its inceptive period, speedily involving the nervous system, in the manner in which that system becomes affected in typhoid fever, and is probably a variety of that disease. It has been generally remarked by those who have observed it, that it is almost constantly fatal, and every case we have seen terminated in that manner. We have sometimes seen yellow fever presenting a similar train of symptoms; and Dr. Stokes has given an excellent description of an epidemic form of gastro-duodenitis, which prevailed with great fatality in Dublin, the leading characters of which correspond very accurately with the disease to which we allude. He remarks, that the first sixteen cases which fell under the observation of himself, and his colleague, Dr. Graves, in the Meath Hospital, terminated fatally. We extracted these observations in the fourth number of the Baltimore Medical and Surgical Journal, p. 442, to *which we must* refer for further information.

Case IV. *Hæmatemesis.*—Charles Chester, seamen, aged 31, was admitted into the Baltimore Infirmary, 17th January, 1835. He has just returned from Canton, via Montevideo, in both of which places he was admitted into hospital for the treatment of syphilis, but experienced no material relief. He is now affected with the symptoms of that disease. The attending physician being absent, no remedies were prescribed for him. Two o'clock, P.M. vomited nearly a basin full of dark colored blood, mixed with clots, after taking a bowl of broth. Pulse rather soft and labored; tongue slightly furred; pain on pressure in the left hypochondriac and in the epigastric region; breathing difficult. Blood-letting from the arm.—℞ Opii. gr. ij. Submuriat. Hyd. gr. v.—Blister to the left hypochondriac, and afterwards to the epigastric region.—Effervescent draught.

18th. No return of vomiting; pulse fuller and stronger; pain in the epigastric and hypochondriac regions alleviated; bowels inactive; laxative enema with Tinct. Opii. gtt. lx. which in the course of half an hour brought away a copious dark fœtid stool, resembling the washings of a gun, and mixed with large clots of blood. The enema was repeated at 9 o'clock, P. M.

19th. Much better; pulse full and soft; no pain.—Boiled milk, with rice for diet. No medicine.

20th. Considerable fever; respiration difficult; bowels inactive; venesection.—Laxative enema, which brought away light colored stools, nearly natural.

21st. Bowels still inactive; difficulty of breathing abated; Obiern's rectum tube introduced without effect.—10 P. M. great tympanites of the abdomen.—Enema of common salt with Ol. Terebinth. without benefit. Two enemata of common salt were afterwards administered—the first containing tinct. assafœtida; the second, Ol. Terebinth.

22d. Same condition—enema repeated.

23d. Bowels inactive; abdomen tympantic—Ol. Ricini ʒ iij. Ol. Menthæ. gtt. iij. 9 P. M. Ol. Ricini ʒ ij. Ol. Menth. gtt. vj. Tinct. opii. ʒ i.

24th. Same condition. ℞ Pil. Hyd. ʒ ss. ft. Pil. xxv. Sumat. 1 ter in die.—Unguent. Hydrarg. fort. to be rubbed on the abdomen.

25th. Bowels less constipated; tympanites continues—continue as yesterday.

26th. Same condition. Ointment omitted—continue pills.

27th. Vomited and passed a large quantity of blood per anum; abdomen distended and painful to the touch; pulse tense, quick and small.—Venesection—Pulv. Doveri, gr. xij.

28th. Vomiting and passage of blood per anum continue; abdomen softer; pulse quick and tense. ℞ Sulph. Alum. ʒ ss, divid. in chart. vj. one to be taken every two hours, if the vomiting continues.

29th. Does not pass blood; pulse tense and quick; tongue red upon the edges and furred; breath very offensive; abdomen swollen, and the existence of fluctuation renders it probable that it contains water; blister to the epigastrium; to be bled; to take the powders if the vomiting continues—10 o'clock much worse; pulse does not warrant blood-letting; seems to be sinking rapidly.

30th. Extremities cold; pulse very quick and small; odor offensive; seems to be insensible, and has not spoken for several hours; spontaneous evacuations of large quantities of blood; slight vomiting.

31st. Died this morning at 8 ρ'clock.

Autopsy by Dr. Wm. N. Baker. About a gallon of limpid water in the abdomen; peritonæum unusually blanched. The external surface of the colon and cæcum presents a dark cerulean aspect, occasioned by the blood contained within. The liver exceedingly indurated and tuberculated throughout—spleen enlarged, and tough in its contexture, but drained of its blood. The liver and spleen firmly united to each other, to the stomach, the peritonæal covering of the diaphragm, and the abdominal parieties, by dense bands of psuedo-membrane, in some instances covered by vessels. The whole of the pancreas indurated. The mucous membrane of the stomach and whole alimentary tube presents, at different points, patches of inflammation, *not recent?* The mucous membrane of the cæcum and ascending colon presents a fine display of follicular inflammation, but no ulceration. The small intestines contain a considerable quantity of mucus, tinged with bile.—The large intestines contain fœtid blood, mixed with fœcal water. The mesenteric glands all enlarged. Lungs healthy.

It is proper to remark, that the provisions of the ship in which *this man* returned to this country, were nearly or entirely exhausted near our coast; that the ship's crew were almost literally starved; and that this man had been indulging to great

excess for eight or ten days before his admission into the Infirmary.—*Reported by Mr. J. Hanson Thomas.*

Remarks.—This case presents many interesting traits, and we regret, that not having had the treatment of it, or an opportunity of observing its progress, we are unable to offer an analysis of its principal characters and phenomena. The association of gastric and intestinal hemorrhage with induration and tuberculation of the liver is an important feature in the case. But as the mucous membrane of the stomach and intestines, and the mesenteric glands, were likewise extensively diseased, it becomes a question, in what relation the several lesions should be considered with the effect produced—the hemorrhage from the stomach and bowels. Whatever may have been the origin of the disease, the mucous membrane of the stomach and bowels unquestionably constituted the *foyer* of irritation which was instrumental in exciting the hemorrhagic action; but from the extensive evidences of disease in the other abdominal organs, there is every reason to believe, that they likewise may have had some participation.

SELECTED PAPERS.

An Essay on the Morbid states of the Urine. By JOHN BOSTOCK, M.D. From the Cyclopædia of Practical Medicine. Part XXIII. Nov. 1834.

THE urine is the fluid which is secreted by the kidneys, and after being deposited for some time in the bladder, is discharged by the urethra. It is one of those secretions to which the term excrementitious has been applied, from its having been supposed to consist essentially of the substances which are separated from the mass of the circulating fluids, for the purpose of being discharged from the system as superfluous or useless, and if retained producing injurious effects.* The kidney has been considered as among the most important of that class of organs which have been styled vicarious or compensating—those which possess the power of temporarily fulfilling the office of some other organ. Thus, for example, if the cutaneous perspiration be suppressed, the aqueous matter is discharged by the kidney;† if an unusually large quantity of fluid be received into the stomach, and taken up by the absorbents, the kidney is the organ through which it finds a natural exit; and even with regard to various articles of food or medicine, although the intestinal canal affords them the most obvious means of being removed from the system, a portion of their elements is generally carried off by the kidney. It must be considered as in some degree owing to this circumstance, as well as to the specific office of the kidney, that the urine is the most compound of all the animal secretions, and, at the same time, the most variable in its contents. This latter property is further increased by the nature of the proximate principles which enter into its composition, many of which are readily decomposable, while they are likewise disposed to act on each other, and during their continuance in the bladder, are placed in a situation which is favorable to this action. These various circumstances would naturally lead us to conclude that the urine must differ considerably in different individuals, and that, in the same individual, under the various circumstances in which he is placed, both those of ordinary oc-

* *Blumenbach,* Inst. Physiol. sect. 34. *Adelon,* in Dict. de Méd. t. xxi. p. 64. Bostock's Physiol. v. ii. p. 371.

† We have an interesting series of observations by Lining, on the relation between the urine and the cutaneous perspiration in the different seasons; *Phil. Trans.* for 1743 and 1745. Observations of a similar kind have been made by other physiologists, but perhaps we have none that are equally numerous and correct.

currence, and more especially in the morbid conditions of the body, these differences would exist, and would be indicative of the causes by which they are immediately produced. We accordingly find that observations on the pathology of the urine were among the first which were noticed by the ancients; that they have at all times occupied a considerable share of attention among the most intelligent medical practitioners;* and that, by the vulgar and the uneducated, they have even been considered as alone sufficient to ascertain the nature of a disease, and as superseding all other pathognomonic symptoms.

On the present occasion we propose to commence by an account of the urine in its healthy state, and after attempting a classification of its morbid states, to offer some remarks on their immediate cause, and the relation which they bear to the derangements of the system. We do not think it necessary to enter upon the consideration of the medical treatment, because, on this subject, little would remain for us but to refer to the various articles which have appeared in the preceding volumes of this work, where the state of the urine has formed a characteristic symptom of disease, or an indication of the effect of remedies upon it.

1. *Of the healthy urine.*—It will be unnecessary to describe at length the appearance and external characters of the urine in its ordinary state. Its quantity varies much in different individuals, and in the same individual under different circumstances, and this without exceeding the limits of what may be strictly regarded as the state of perfect health. Physiologists have attempted to form an average estimate of the quantity voided during the diurnal period; but this investigation, simple as it may appear, is attended with considerable difficulty. Haller, after collecting a number of observations made by different individuals, fixed the quantity at forty-nine ounces.† The writer of this article, proceeding principally upon the observations of Rye, which appeared to him the most numerous and the most accurate on record, was induced to lower it to forty ounces;‡

* With respect to the ancients, it will be sufficient to refer to the second book of Hippocrates's treatise De Prædict., and to Galen's De Crisibus. As we approach to our own times, we may select from the more celebrated of the moderns, Willis's Exerc. de Urinis, and Bellini's work, De Urinis et Pulsibus. Since the improvements of modern chemistry made us acquainted with the constitution of the urine and the nature of its constituents, the attention of many of our most eminent pathologists has been directed to this subject with much success. Among the first and most valuable of their productions is the essay of Cruickshank, "On the manner of distinguishing Diseases by the Urine," which contains, in a short compass, much accurate and original observation. Rollo on Diabetes, and Tilloch's Phil. Mag. vol. ii. p. 240, et seq.

† Elem. Phys. 26, 4, 6.

‡ Rogers on Epidemic Diseases, Appendix to Med. Chir. Tr. vol. iii. p. 110.

while Dr. Prout, whose opinion on every point connected with this subject is of the highest authority, reduces it to thirty-two ounces.*

The specific gravity of urine, as might be supposed, is at least as variable as its quantity. It has been found, in some cases, not very much to exceed that of water, being as low as 1005, while in others it rises as high as 1040 or even 1050.† Both these extremes, however, especially the latter, are to be regarded as indicating a diseased state of the system, in which not only the relative proportion of the solid and the fluid part of the urine is affected, but where the nature of the solids themselves is changed. Dr. Henry is disposed to consider 1030 as a fair average of what may be regarded as healthy urine,‡ while Dr. Prout makes it no more than 1025;§ perhaps we shall not be able to fix upon a standard more likely to be generally applicable than 1020, which is not far from the mean between these numbers.‖

With respect to the chemical constitution of the urine, notwithstanding the elaborate examinations of it which have been made by chemists of the first eminence, there would appear to be still some degree of uncertainty. The analyses of Dr. Henry and of Berzelius, who have cultivated the department of animal chemistry with so much success, although essentially coinciding, differ in several minute points, both as to the substances which are actually present in the urine, and the mode of their combination. According to Dr. Henry there are twenty-one substances which "have been satisfactorily proved to exist in healthy urine;"¶ the list of these we subjoin, and compare it with that given us by Berzelius,** which, as will be seen, is somewhat different.

* Inquiry into the Nature of Gravel, &c. p. 35.

† *Cruickshank*, ubi supra. *Berzelius*, Traité de Chimie, par Esslinger, t. vii. p. 342.

‡ Elements of Chemistry, vol. ii. p. 490.

§ Inquiry, p. 5.

‖ Brande's Manual, vol. iii. p. 191. Berzelius adopts the estimate of Dr. Prout, ubi supra.

¶ Elem. p. 490.

** Traité, p. 392, 3. Berzelius arranges the substances found in urine under the two heads of the ordinary constituent principles, and the accidental principles; but the latter are chiefly composed of the substances that are found in the urine in its various morbid states: p. 343 and 399. Mr. Brande reduces "the substances that are always found in the urine" to twelve: water, carbonic acid, phosphoric acid, uric acid, phosphate of lime, phosphate of ammonia, phosphate of soda, phosphate of magnesia, common salt, sulphate of soda, albumen, and urea; Manual, v. iii. p. 191. Fourcroy extends the number to thirty, but the existence of some of these he considers as doubtful, at least in *the natural and* recent state of the urine: System of Chem. Knowledge, by *Nicholson, v. x. p. 185.*

Henry.	*Berzelius.*
1. Water.	Water.
2. Free phosphoric acid.	
3. Phosphate of lime.	Phosphate of lime.
4. Phosphate of magnesia.	Phosphate of magnesia.
5. Fluoric acid.	
6. Uric acid.	Uric acid.
7. Benzoic acid.	
8. Lactic (impure acetic) acid.	Free lactic acid.
9. Urea.	Urea.
10. Gelatine.	
11. Albumen.	
12. Lactate (acetate) of ammonia.	Lactate of ammonia.
13. Sulphate of potash.	Sulphate of potash.
14. Sulphate of soda.	Sulphate of soda.
15. Fluate of lime.	
16. Muriate of soda.	Chloruret of soda.
17. Muriate of ammonia.	Chloruret of ammonia.
18. Phosphate of soda.	Phosphate of soda.
19. Phosphate of ammonia.	Biphosphate of ammonia.
20. Sulphur.	
21. Silica.	Silex.
	Extract of meat soluble in alcohol.
	Extractive matters soluble only in water.
	Mucus of the bladder.

On comparing the two lists, we find that of the twenty-one ingredients enumerated by Dr. Henry, fourteen may be considered as recognized by Berzelius, while there are seven, viz. uncombined phosphoric acid, the fluoric and benzoic acids, the fluate of lime, albumen, gelatine, and sulphur, which are not included by him. On the other hand there are three substances, extractive matter soluble in alcohol, extractive matter soluble in water, and the mucus of the bladder, which are enumerated by Berzelius, but are not recognized by Dr. Henry. On these discrepancies we shall venture to remark that there appears to us to be scarcely sufficient evidence of the existence of uncombined phosphoric acid in healthy urine, and that the presence of benzoic acid, in human urine,* of the fluoric

* The principal authority for the existence of benzoic acid in human urine is Thenard; Ann. Chim. t. lix. p. 270. Dr. Prout, however, remarks "that it does not exist in healthy human urine;" Inquiry, p. 19. Berzelius informs us that the substance which had been supposed to be benzoic acid is a compound of this acid with urea, to which he gives the name of urobenzoic acid, p. 363. it may be presumed, however, that he does not conceive it to exist read-

acid,* and of course of fluate of lime, may be regarded as somewhat problematical. The existence of sulphur in urine, although omitted by Berzelius, appears to be fully established by the experiments of Proust.† With respect to two of the additional substances introduced by Berzelius among the constituents of urine, we feel disposed to admit of their existence; the extractive matter soluble in alcohol we believe to be either identical with, or to be very similar to the uncoagulable matter of the serosity of the blood, and to be nearly related to the proximate principle which has been styled *osmazome*. The mucus of the bladder, if not an essential constituent of the urine, we believe to be very generally present in it; and although it is not admitted by Dr. Henry into his list, yet he remarks, in a subsequent paragraph, that it exists in healthy urine.‡ As to the "extractive matters soluble only in water," we confess that we are altogether uncertain to what principle or substance Berzelius here refers, nor can we well conceive of any to which this description can be considered as appropriate.

Besides the substances mentioned above, there are others which have been supposed by some chemists to enter into the composition of healthy urine. This is the case with the carbonic and the acetic acids, the former of which, if not essentially present, is at least frequently detected in urine that exhibits no other morbid character;§ while the latter, which has been announced by Proust, Thenard, and others,‖ we may conceive to be the same substance with the lactic acid of Berzelius. To these we may add a certain principle or principles, which give the urine its peculiar color and odor, neither of which would appear, from the experiments of Dr. Prout, to be necessarily connected with the urea.¶ We may further re-

formed in the urine, as he does not place it in his list of its constituents. See also some experiments of Leibig, who detected a peculiar acid in the urine of the horse, but which appeared not to be the benzoic; p. 365. We may remark that Fourcroy and Vauquelin admit of its existence, but in an extremely minute quantity; Ann. Chim. t. xxxi. p. 62, 3.

* The fluoric acid seems to have been admitted on the authority of Berzelius; Ann. Chim. t. lxi. p. 256; also Med. Chir. Tr. v. iii. p. 253. He, however, as appears above, does not enumerate it among the constituents of urine in his last work.

† Ann. Chim. t. xxxvi. p. 258-60.

‡ Elem. v. ii. p. 493.

§ *Proust*, Ann. Chim. t. xxxvi. p. 260, 1; *Vogel*, ibid. t. xciii. p. 71 et seq.; *Marcet*, in Calc. Dis., p. 168-70; Prout's Inq. p. 19; *Henry*, v. ii. p. 495; *Brande*, Manual, v. iii. p. 192.

‖ *Thenard*, Traité de Chimie, t. iii. p. 728, and Ann. Chim. t. lix. p. 275; *Henry*, v. ii. p. 493, *Berzelius*, t. vii. p. 361, 2.

¶ *Med. Chir.* Tr. v. viii. p. 529, and Inq. p. 8-10; *Berzelius*, Traité, t. vii. p. 371, 2, and Journ. Roy. Inst. v. i. p. 401. See also Wohler's experiments on the mode of obtaining pure urea, in Ann. Chim. t. xliii. p. 64 et seq.

mark on the constitution of the urine, that we doubt whether albumen should be considered as forming one of its constituents while in the healthy state, and that we are not acquainted with any experiments which afford unequivocal evidence of the presence of gelatine.

The urine, in its natural and healthy state, always exhibits acid properties, as is shown by its effect on test-papers. We are disposed, however, to agree with Dr. Prout, that this excess of acid arises, not from any portion being in an uncombined state, but that certain of the alkaline and earthy bases are not neutralized, but are in the state of super-salts. This remark applies equally to the lithic and the phosphoric acids; the former of which we conceive exists in the form of super-lithate of ammonia, and the latter in the same state of combination with the alkalies, and probably also with the earths that are present in the urine. The same remark may apply to the lactic and the acetic acids; for in this case, as in the former, if we conceive them to be absolutely uncombined, they would precipitate the whole of the lithic acids.*

One of the most important circumstances connected with the chemical constitution of the urine is the state of solution in which the phosphate of lime is held, in consequence of the excess of acid, to which we have referred above. If this excess be neutralized by the addition of ammonia, the phosphate of lime is precipitated without decomposition, in the form of a white impalpable powder. The phosphate of magnesia is likewise precipitated without decomposition, but it unites with a portion of the ammonia, forming a triple salt, the ammoniaco-magnesian phosphate, as it has been usually termed. These two salts enter largely into the composition of certain urinary calculi, and it may be presumed that the deficiency of acid in the urine is, in this case, the immediate cause of their formation. Dr. Henry informs us that the average quantity of phosphate of lime in urine is about half a grain in each ounce of the fluid,† thus affording nearly twenty grains per day; a quantity amply sufficient to lay the foundation of a calculous concretion, were there not an appropriate solvent provided.

The presence of sulphates in the urine is clearly ascertained by the appropriate tests;‡ and as neither the sulphuric nor the phosphoric acids exists in the blood, it has been conjectured, with great plausibility, that one essential office of the kidney is to acidify the bases of these acids;§ the ultimate object of which may probably be, to remove the excess of earthy matter which remains after the employment of that portion of it which is necessary for the formation and support of the bones.

* Prout's Inq. p. 11-15.

† Elem. vol. ii. p. 491.

‡ *Berzelius*, in Med. Chir. Tr. vol. iii. p, 259-62.

§ *Berzelius*, ubi supra; Prout's Inq. p. 30, 1.

A much more important office of the kidney, what may perhaps be distinguished as its appropriate function, is the removal from the system of the superabundant nitrogene.* It appears to be essential to the existence and well-being of the animal fabric that an ample supply of this element should be always at hand, in order to contribute to the formation of the various solids and fluids into which it enters, as one of the most abundant constituents. The main source of this supply is introduced through the medium of the digestive organs; but as it is necessarily very variable, in consequence of the difference both in the quantity and in the quality of the ingesta, it follows that, on ordinary occasions, the supply is greater than the demand. The superfluous quantity is separated from the blood by the kidney under the form of the urea, the substance which may be regarded as the specific secretion of the organ, and as composing the essential ingredient in healthy urine.† It will not be necessary, nor would it indeed be proper for us in this place, to enter upon a minute description of urea, or of its relation to the various chemical re-agents; it will be sufficient to observe that nitrogene enters more largely into its composition than into that of any other organic body, constituting very nearly one half of its weight.‡

Another important circumstance to be attended to in the chemical constitution of the urine is its tendency to spontaneous decomposition, and to the reciprocal action of its various constituents upon each other. When

* Bostock's Physiol. vol. ii. p. 372.

† We are indebted to Cruickshank for our knowledge of the urea as a distinct proximate principle: Rollo on Diabetes, and Tilloch's Phil. Mag. ubi supra, its properties were afterwards more fully ascertained by Fourcroy and Vauquelin; Ann. Chim. t. xxxi. p. 68-71. The only other specific secretion of the kidney is the lithic acid: for a full account of this substance and its chemical relations, we may refer our readers the valuable inaugural dissertation of Dr. Henry, De Acido Urico, and to the abstract of it in the second volume of the Manchester Memoirs.

‡ The ultimate analysis of urea has been made by Berard, Dumas, and Dr. Prout; these two latter eminent chemists agree very nearly in their estimate, the former making the nitrogene 46.9 per cent., Ann. Chim. t. xliv. p. 273 et seq.; and the latter 46.66; Med. Chir. Tr. vol. viii. p. 535, and vol. ix. p. 483; Henry's Elem. vol. ii. p. 430; and *Berzelius*, Traité, t. vii. p. 378. According to the analyses of Henry, p. 496, and Berzelius, p. 392, 3, the urine, in its average state, contains 3 per cent. of urea, which will be very nearly 1.5 per cent. of nitrogene. Taking the specific gravity of the urine at 1020, and assuming that two pounds and a half are voided in the diurnal period, we shall have not much less than one ounce weight of nitrogene removed from the system daily. A portion of nitrogene, although very inconsiderable compared to that in the urea, is likewise carried off from the system under the form of lithic acid, of *which it composes* between 30 and 40 per cent.; *Marcet*, p. 73, *Berzelius*, p. 350. *The nitrogene* discharged in this way will not exceed two-thirds of a *grain daily.*

the urine has been voided, and left at rest for some hours at the ordinary temperature of the atmosphere, it generally begins to deposite a portion of the salts which it previously held in solution. The immediate cause of this effect would appear to be the generation of a quantity of ammonia, arising from the partial decomposition of the urea; the ammonia thus produced is in part united to carbonic acid, which is also generated, while another portion of it saturates the excess of the acids in the super-salts, and in this way precipitates the lithic acid and the earthy phosphates. This process is considerably promoted by an increase of temperature; and it appears that it is carried on, to a certain extent at least, in the bladder, when the urine is by any cause detained for an unusual length of time in that cavity.*

At the same time that these changes are going on, or perhaps in a later stage of the process, a quantity of acetic acid is also generated, which unites with another portion of the ammonia; thus the acetate and the carbonate of ammonia, the neutral phosphate of lime, and the ammoniacal phosphate of magnesia constitute the immediate products of the spontaneous decomposition of the urine. If we admit the speculation of Berzelius, which appears to be supported by many powerful considerations, that the kidney is the general outlet by which the effete or decomposed materials of the system are removed from the body after they have discharged their respective functions,† we shall have an additional source of diversity in the composition of the urine, and also, in proportion to the heterogeneous nature of its constituents, we may expect that there will be an increased tendency in its component parts to react upon each other.‡

* *Fourcroy and Vauquelin*, Ann. Chim. t. xxxi. p. 58, 60. *Berzelius*, t. vii. p. 342.

† View of Animal Chemistry, p. 16, 82; Traité, t. vii. p. 339.

‡ For a more minute account of the properties of the urine than would be consistent with the object of this article, as well as for an historical detail of the successive discoveries which have been made respecting it, the reader is referred to Aikins' Dict., in loco; Thomson's System, vol. iv. p. 551 et seq.; Henry's Elements, vol. ii. p. 489 et seq.; Brande's Manual, vol. iii. p. 190 et seq.; Turner's Elements, p. 775 et seq.; *Thenard*, Traité de Chimie, t. iii. p. 723 et seq.; *Berzelius*, Traité, t. vii. p. 339 et seq.; and Med. Chir. Tr. vol. iii. p. 257 et seq.; *Montfalcon*, in Dict. des Scien. Méd., article *Urine;* to which is appended a copious list of references by Vaidy, which is very complete for the earlier writers, but less so for the more recent authors, and especially for the English; t. lvi. p. 332, 4; *Orfila*, in Dict. de Méd., article *Urine*, in loco; *Andral*, ibid, article *Urine Semeiotique*, in loco; we have a series of valuable experiments on the urine, many of them of a statical nature, by Chossat, in Magendie's Journ. t. v. p. 65 et seq. Fourcroy's great work contains a most minute account of the urine at the period when it was written, but later discoveries and experiments have led to an alteration or modification of many *of the statements*; System, vol. x. p. 129 et seq.

II. *Mordid states of the urine.*—Before we attempt an arrangement or classification of the morbid states of the urine, it will be necessary to form a clear conception of the nature of those changes in the fluid which may be entitled to this appellation. It would probably be impossible to form a classification which should include every casual or temporary alteration in the properties of the urine, nor if it could be accomplished, would its value be in any degree commensurate with the difficulty of the execution. Our object must be to charcterize those conditions of the urine which are well marked, which have a certain duration, where its constituents bear a new chemical relation to each other, and where this is connected with an altered state of one or more of the animal functions. Proceeding upon this basis, we shall endeavor to arrange all the morbid states of the urine under the seven following species, naming them from the circumstance from which they derive their most obvious properties: 1. the aqueous; 2. the sub-aqueous; 3. the lithic; 4. the phosphatic; 5. the purpuric; 6. the albuminous; 7. the saccharine. To these we must add, as a kind of appendage, an eighth section, in which we may include various miscellaneous or incidental circumstances connected with the constitution of the urine, which are not capable of being reduced to any assignable or recognized species.

1. *Aqueous urine.*—This may be characterized as a state of the secretion, where the proportion of the fluid to the solid contents is morbidly increased, and which is frequently, although not necessarily, attended by an increased quantity of the urine that is discharged. And here we must be careful not to confound those incidental or temporary changes in the state of the fluid, such as are produced by the application of cold to the surface of the body, or by certain mental emotions, with the watery urine, which proceeds from a permanent or constitutional cause. Among the causes of this description, perhaps the most frequent and the most efficient is that state of the system which has been denominated the nervous temperament, and more especially the peculiar modification of it which gives rise to the hysteric paroxysm. Here we have an unusually large quantity of urine discharged, and this often containing less than the ordinary proportion of solid matter, and as far as has been ascertained, without any other essential change in the nature or proportion of its constituents. The aqueous urine will be often found to exist in that state of the system, where, without any specific disease, the powers both of the mind and the body begin to decline, and when the gradual decay of all the organs indicates the approach of old age.* Here the functions of the kidney are among the first to feel the effects of that decay, which gradu-

* The late Dr. Heberden, in his invaluable volume, enumerates the frequent *passing of urine* among the symptoms of what he styles Valetudo Conquassata; *Comment. chap.* 94; in this state we believe the urine will be found to *be much increased* in quantity, and to be aqueous.

ally undermines every part of the system, and which terminates in its dissolution. We are not aware of any specific cause of this particular condition of the urine, independently of the general irritability and debility of the system; nor do we know that it leads to any specific indication either of prognosis or of treatment. We believe, however, that it is an actual and not a very unfrequent occurrence, and that it is one to which the attention of the practitioner may be advantageously directed, as it may assist him in forming an opinion respecting the general state of the vital energies of the system, and of the degree in which the organs of digestion and assimilation are capable of performing their functions.

2. *Sub-aqueous urine.*—This, in its specific character and its appellation, may be considered as directly the reverse of the former state, and yet, in its pathological cause, is somewhat closely connected with it. In certain cases of increased discharge of urine, it will be found, that besides an augmentation in the quantity of the secretion, it contains even more than the ordinary proportion of solid contents, and thus, both from its quantity and its quality, carries off from the system an unusually large proportion of the ingredients, which ought to be applied to its growth or support. The sub-aqueous urine is sometimes found to exist in the decline of life, and would appear to be one cause among others by which a premature state of decay is effected. But it more frequently occurs at an earlier period in constitutions that have been debilitated by various causes, and particularly by excesses of all kinds; by long-continued violent exercise, by stimulating diet, and especially by large potations of wine and fermented liquors, and perhaps, more than any other cause, by excessive sexual indulgence. This state of the urine is occasionally met with in persons whose constitutions have been injured by a residence in tropical climates.

The sub-aqueous urine is often found to be connected with the albuminous, or to alternate with it; and it would appear to be, to a certain extent, the result of the same causes acting upon a different constitution, and exhibiting themselves in a more chronic form, consequently with less of febrile action and without the specific derangement of any particular organ. To this species we are disposed to refer the variety of diabetes which has been termed *insipidus*, where we have an increased flow of urine, of high specific gravity, with the constitutional symptoms of the disease, both as to the state of the digestive organs and the skin; but where the urine does not contain any saccharine matter.* We believe

* The writer of this article presented a case of this description to the Medico-Chirurgical Society, where the urine contained no saccharine matter, but where its specific gravity was 1034, while the quantity discharged daily amounted to five quarts. By an analysis of the urine it appeared that the patient was discharging daily seven and a half ounces of urea, which may be considered as at least three times the natural quantity. Med. Chir. Tr. vol. iii. *p. 107 et seq.*

it will be found upon examination that the sub-aqueous state of the urine is not unfrequently a precursor of its saccharine state, and that, in some cases, which may be correctly styled diabetes, the disease never proceeds beyond this stage, in consequence of some change being effected in the constitution, either by natural causes or by the operation of remedies.

3. *Lithic urine.*—This is characterized by the spontaneous deposition of lithic acid, constituting the principal part of what is generally termed the sand or gravel of urine. The immediate cause of this deposition is the presence either of some other acid in the urine, which may precipitate the lithic acid naturally contained in it, or merely an increased quantity of the lithic acid itself, or rather the super-lithate of ammonia, so as to be more than can be held in solution in the urine, especially when it is reduced in temperature, after being discharged from the bladder. It appears that this latter, which is the simplest form of the disease, is also the most frequent, and in fact that there are few individuals in whom it does not occasionally exist:* we find, indeed, that any cause which deranges the digestive process or interferes with its due action, may produce the deposite of lithic acid. Among the most frequent of these causes we may enumerate an excessive quantity of food taken into the stomach, food of an indigestable nature, exercise taken immediately after a full meal, the application of cold to the surface of the body or to the feet during digestion, and an undue quantity of liquid taken into the stomach.

In the most simple form of the disease there is a deposite from the urine, as it cools, of a brown sediment, which is either pulverulent, or consisting of a mixture of the powder with minute crystalline spiculæ. When this deposite, as is frequently the case, assumes a pink or purple color, it depends upon a combination of the purpuric with the lithic state of the urine. In the less simple form of the disease there would appear to be an additional agent in the urine, besides the superabundant lithic acid, which produces the deposite in question. Dr. Prout supposes that the precipitation may be effected by various acids, but most generally by the phosphoric, and occasionally by the sulphuric, the nitric, or the carbonic, as well as by some other acids which are the peculiar product of the renal secretion.† In this case the lithic acid is precipitated in more or less of a crystalline state, and forms the greatest part of what has been termed urinary gravel. This gravel, like the sand in the former variety, may be tinged of a pink or purple color, depending, in like manner, upon the combination of the purpuric with the lithic urine.‡

* Prout's Inquiry, p. 121.

† Inquiry, p. 128.

‡ For a very complete account of this variety of the urine, and of the state *of the system which* produces it, the reader is referred to the valuable treatise *of Dr. Philip, first* published separately in the year 1792, and afterwards, in an *altered form, in the* sixth volume of the Transactions of the College of Physi-

With respect to the pathology of the lithic urine, it may be generally considered as a symptom of an imperfect state of the digestive organs either induced, in each individual case, by a specific cause acting upon the stomach and the chylopoietic viscera, or by a peculiar condition of the constitution, more especially by the gouty diathesis.* It is this state of the urine which lays the foundation for a large proportion of the calculi which are occasionally formed in the bladder, or other parts of the urinary organs. We find, by chemical analysis, that the most frequent species of these concretions consist essentially of lithic acid, and that in many others, where the bulk of the calculus is composed of the phosphates, the nucleus consists of lithic acid.†

4. *Phosphatic urine.*—This, when considered in its chemical relations, may be regarded as the opposite state to the lithic, consisting essentially in an excess of the phosphoric salts, and especially of the phosphates of lime and of magnesia, with a comparative deficiency of the lithic acid. Hence it is characterized by the deposition of the phosphates in the form of a sediment, which is generally white, and of an earthy or chalky appearance, although occasionally assuming the crystalline state. The chemical constitution of the phosphatic urine appears to differ considerably in different cases, all of which, however, agree in the characteristic circumstance of the excess of the phosphoric salts. Sometimes there is a deficiency of the urine in proportion to the saline ingredients, and at other times there is an absolute deficiency of both the urea and the salts, reducing the urine to the aqueous state, but still maintaining the relative excess of the phosphates.

The pathological condition of the system which produces the phos-

cians, and to the third chapter of the second section of Dr. Prout's Inquiry. Both these writers refer to a work, published nearly half a century ago by Forbes, which appears to possess very considerable merit, when we consider the imperfect state of chemical science at that period.

* We are indebted to Wollaston for the discovery of the chemical nature of the gouty concretions, which had been previously termed chalk-stones, as consisting of the lithate of soda. Phil. Trans. for 1797, p. 389. These bodies had been previously examined by Berthollet; but it appears that this eminent chemist, who on most occasions is so remarkable for his accuracy; in this instance proceeded rather upon theory than actual experiment. He supposed that the urine of gouty patients was deficient in phosphoric acid, and that the acid was deposited in the joints in combination with lime. Journ. Phys. t. xxviii. p. 275. In connexion with the subject of gouty urine we may refer to the work of Sir C. Scudamore, who performed a series of experiments on this subject.

† *Fourcroy and Vauquelin*, Ann. Chim. t. xxxii. p. 217; Philip, Trans. Coll. Phys. v. vi. p. 176; *Pearson*, in Phil. Trans. for 1798, p. 38; *Marcet*, ch. v. Prout's Inq. p. 65 et seq.; *Henry*, Med. Chir. Trans. v. x. p. 132; *Smith*; Med. Chir. Trans. v. xi. p. 10; *Egan*, in Tilloch's Phil. Mag. v. xxiii. p. 198, et seq.

phatic urine is less easily characterised than the lithic, as it would appear that a variety of circumstances, which have no very obvious connexion with each other, both of a constitutional and a local nature, agree in producing this morbid change in the state of the urine. The phosphatic urine is frequently observed in sickly and ill-fed children, in those that inherit a scrofulous constitution, or where we have reason to suspect the existence of diseased mesenteric glands. Again, in the decline of life we find that various circumstances, which contribute to break down the constitution, and affect the digestive and assimilative functions, diseases of the glandular system, and especially local injuries of the parts contiguous to the kidney, are among the frequent causes or concomitants of the phosphatic urine. It would appear also to be produced by mechanical irritation of the bladder; for it has been observed that a considerable number of the calculi, which are principally composed of the phosphates, possess a nucleus or lithic acid, or some substance which has been accidently introduced into the bladder, and which appears, by its action upon that organ, to have contributed to the production of the excess of the phosphates, and their consequent deposition. As in the case of the lithic urine, so the phosphatic is sometimes connected with the purpuric state, thus affording deposits of various shades of color.* We also find that the lithic and the phosphatic urine not unfrequently alternate with each other: it is this state of things which gives rise to one of the species of calculi which have been termed, from their mechanical formation, alternating.† Upon the whole, we must consider the phosphatic urine as indicating a greater derangement of the system, and one which is less under the influence of curative means, than the lithic.‡

5. *Purpuric urine.*—This is characterized by the color of its deposite, which, in its ordinary state, has obtained the name of the lateritious sediment. It was recognized as the indication and concomitant of the febrile state of the constitution, among the earliest observations that were made on this fluid, and one which has always been regarded as among the most decisive pathognomonic symptoms of an increased action of the arterial system. The first attempt to ascertain the immediate cause of the change of the urine appears to have been made by

* The combination of the phosphatic and the purpuric deposits may in most cases be distinguished from that of the lithic and the purpuric, by the latter being tinged with the brown color of the lithic acid, while the former, being a mixture of a white and a purple substance, are of a purer pink color.

† Marcet, pp. 59, 96.

‡ Perhaps one of the most valuable parts of Dr. Prout's work is his chapter *on what he styles* "the phosphatic or alkaline diathesis;" although, were we *inclined to be hypercritical*, we might object to the term *alkaline* as applied to *this state of the urine.*

Proust,* but not with any great success, as he does not appear either to have ascertained the exact nature of the change, or the means by which it is effected. For the more correct information which we possess on the subject, we are indebted to Dr. Prout, who investigated it with his accustomed acuteness, and proved that a new substance, possessing the properties of an acid, is produced in the urine, which, from the color of its combinations with the alkaline bases, he termed the purpuric acid.† He also rendered it probable that all the shades of color which were observed in the urinary deposites, from reddish brown to pink and purple, may be referred to the mixture of the purpuric with the lithic acid, or with the phosphates of lime and magnesia.

With respect to the pathology of the purpuric urine, it may be simply characterized as the urine produced by that increased action of the arterial system which constitutes imflammatory fever; which, therefore, may occur either in its simple state, or in combination with the lithic or the phosphatic urine, when any circumstance induces febrile action while either of these states is present. It has been supposed that the purpuric urine is more immediately connected with the diseases of certain of the abdominal viscera, but we conceive there is reason to doubt whether this opinion be tenable, and we undoubtedly find that the purpuric urine exists, in the most marked form, where we have been unable to discover any traces of local inflammatory action. The existence or the purpuric urine in its various shades and combinations is almost as frequent an occurrence as the lithic, and is in many cases produced by very slight derangements of the system. But when, on the other hand, it exists in a high degree, and continues for a long time without interruption, it indicates a morbid derangement of the functions, which it is often difficult to remove, and which must be regarded as leading to an unfavorable prognosis.

6. *Albuminous urine* is distinguished by its exhibiting the presence of the proximate principle from which it derives its specific appellation, when the appropriate tests are applied to it. The albumen sometimes exists in so great a quantity as to render the fluid more or less opaque when it is discharged from the bladder; but it may be frequently detected in the fluid by exposing it to heat or to certain chemical re-agents, when it is not otherwise visible. It seems to have been first distinctly brought into view by Cruickshank, in the essay to which we have referred above:‡ it was afterwards very carefully described by Blackall, who considered it as a pathognomonic symptom of a peculiar species of dropsy, which, as he

* Ann. Chim. t. xxxvi. p. 265-9.

† Phil. Trans. for 1818, p. 420 et seq.; and Med. Chirurg. Trans. vol. x. p. 481, 2.

‡ Rollo on Diabetes, and Tilloch's Phil. Mag. vol. ii. p. 248.

conceived, required a specific mode of treatment,* and has more lately been made the subject of consideration by Dr. Bright, in the series of his valuable pathological observations.† Albuminous urine is symptomatic of increased action of the arterial system, connected with visceral derangement; generally of the kidney, (when it is frequently attended by dropsy,) and occasionally of the liver, so as to constitute a very formidable disease. In other instances, however, it would appear to be produced simply by a morbid condition of the digestive organs, unconnected with any structural disease, and in this case to be of transient occurrence, and to be indicative of a slight derangement of the functions.

7. *Saccharine urine*, like the albuminous, derives its specific name from the presence of the proximate principle which is found to exist in it, and which constitutes the most remarkable pathognomonic symptom of the ordinary form of diabetes. This disease had been very correctly described by the ancients; but although they noticed the increased flow of urine, its peculiar condition, as containing a quantity of saccharine matter, was first pointed out by Willis. Of late years, since the chemical constitution of the animal fluids, both in their healthy and their morbid states, has been more attended to and better understood, the saccharine urine of diabetes has been the subject of very numerous experiments. The result appears to be that the urea is in a great measure deficient, while in its place the kidney secretes a substance which has every property of sugar, both as ascertained by the spontaneous changes which it undergoes, and by the action of chemical re-agents upon it.‡

8. In this section, devoted to the consideration of the various miscellaneous or incidental circumstances connected with the state of the urine, we shall merely enumerate some of the substances which are stated to have been occasionally observed in this fluid. Of these we may mention blood in its entire state, perhaps, in some instances, the red particles alone, without the other constituents, pus, mucus, bile, and various articles of food or medicine, or rather certain principles immediately derived from them. To these we may add certain substances which have not hitherto been noticed among the ordinary constituents of urine, which enter into the composition of some of the urinary calculi, all of which we may presume exist in the urine in some part of its course from the kidney to the

* Observations on Dropsy. We have a judicious critique on this work in the Edin. Med. Journ. vol. ix. p. 334, et seq.

† In connexion with the account of the albuminous urine, which is contained in Dr. Bright's Medical Reports, the reader is referred to Dr. Christison's remarks in the Edin. Med. Journ. vol. xxx. p. 107 et seq., and to the observations of Dr. Gregory in vol. ii. xxxix. p. 54, et seq.

‡ In the eighth volume of the Med. Chir. Trans. p. 537, Dr. Prout has given the analysis of the saccharine urine: see also Chevreul, Ann. Chim. t. xcv. p. 319, and Bostock's Physiol. vol. ii. p. 361.

uretha. These various occurrences are all of them more or less important, and deserve to be noticed by the pathologist and the practitioner, as indicating the existence of derangements, either constitutional or local, and as consequently directing us in our prognosis and guiding us in our treatment. The only general conclusion which we can form on the subject is, that the renal secretion is peculiarly liable to be affected by causes, both internal and external, of all descriptions; and that, although the observation of its changes has been frequently resorted to as the means of imposing on the credulity of the vulgar, there is perhaps no one circumstance connected with the animal economy, which is more worthy of the attention of the enlightened practitioner, and which is more likely to repay his researches by affording him an indication of the state of the functions, and of the effect of the curative means by which he endeavors to correct their various morbid states.

On the presence of an Aromatic Substance in Urine analogous to Musk. By A. CHEVALLIER.—Among the singular phenomena which presented themselves to M. Chevallier while engaged in the examination of the urine of different patients, he remarked the presence of an aromatic substance analogous to musk.

In three cases this was observed; 1st, in the urine of a man treated by M. Andral, the younger, for arthritic pains; 2d, in that of a lady laboring under *pneumonia;* 3d, in that of a student of pharmacy. In none of these cases had the individual used musk. In the first two cases the urine had a very marked odor of musk. Submitted to distillation, it furnished an aromatic liquor possessing the odor of both urine and musk. The former disappeared at the end of a few days, leaving the latter alone perceptible. This odor continued for several months. In the third case, the individual found occasionally that his urine had a light agreeable odor, which he compared to that of musk. This occurred in various circumstances, but especially after exercise. In these cases the urine possessed more odor in the evening than in the morning, and making water was preceded by rather acute pains in the kidneys. The patient had never swallowed musk, and he had not touched it while the phenomena appeared. M. Chevallier has met with the odor of musk in a small uric acid *calculus* examined by him; but this is the only instance in which he has met with it in upwards of two hundred calculi which he has examined.

It is probable that musk may, in certain cases, be produced in the animal economy, in consequence of morbid alterations. The odor of this principle has already been recognized in the bile, and some of the other products of animal nature; and it is probable that it is further produced in other circumstances.

It may be here observed, that cow-houses almost invariably exhale a musky odor; and that it is not at all improbable that this depends on the presence of some musk-like principle in the urine of the cow.—*Journal de Chimie Medicale.—Edinburgh Med. and Surg. Journal, October*, 1834.

REVIEWS.

Admonere voluimus, non mordere.——
Sunt bona; sunt quædam mediocria, sunt mala plura.

Chemical and Medical Researches on Kreosote. Its preparation, properties and use. By E. Miguet, Physician, Mem. Chem. and Phil. Soc. of Paris, &c. &c. Translated from the French by Wm. Wetherill, M.D. Philadelphia. Judah Dobson, 1835.

Our attention has recently been directed to a small work, bearing the above title, which contains, as its tenor imports, an extended account of Kreosote, in its manufacture, chemical characters, physical, physiological and therapeutic properties. The information which has been communicated to the world heretofore on this subject has been scattered through so many periodicals, and at such irregular intervals, that we gladly avail ourselves of the present comprehensive view of all that is known in relation to it, to present our readers with such an abstract as will enable them to form definite ideas of the sanative properties of kreosote, and its claims to admission among the established articles of the materia medica.

Its name is derived from two Greek words, (κρεας, flesh, σωζω, I preserve) signifying a preserver of flesh, which was given it by its discoverer, Mr. Reichembach, who first separated it from pyroligneous tar. The action of kreosote upon the skin of his fingers induced Mr. Reichembach to believe that he had discovered the preserving principle of pyroligneous acid, and numerous experiments, confirmed the opinion of its efficacy, in suppurating sores, chronic diseases, &c. It also occurred to him from its antiseptic action on dead animal matter, that it would be of much service as a therapeutic agent, when placed in contact with living tissue. We now proceed to an abstract of its different properties, manufacture, &c. and first of its

PHYSICAL PROPERTIES.

Kreosote is a colorless transparent liquid, of an oleaginous consistence, a disagreeable, penetrating odor, resembling smoke, and a burning very caustic taste. It has great refracting powers, and sp. gr. 1.037.

CHEMICAL PROPERTIES.

It boils at 203° Cent., (397° F.) and is not congealed at 27° Cent. (80° F.)* Burns with a smoky flame, and is not a conductor of electricity.

* *There must certainly* have been an omission of the sign minus here, as the *temperature here designated* is one at which we should scarcely expect any *thing to congeal. The text* should doubtless read—27° Cent., 17° F.

"It forms with water at twenty degrees, two different combinations; one is a solution of one and a quarter of Kreosote in one hundred parts of water, which makes one part of Kreosote to eighty of this liquid; the other on the contrary, is a solution of *ten parts of water in one hundred of Kreosote.*"

It has not fallen to our lot to meet with the original treatise of Mr. Miguet, but we can scarcely believe that the American translator has correctly interpreted his meaning in the preceding paragraph. In the first place *our* chemistry admits no knowledge "*of water at twenty degrees,*" or at least affixes no definite idea to the term. Nor should we call a solution of a substance in, or rather its diffusion through a menstruum, "*a combination.*" And in the latter part of the sentence kreosote is evidently put for water, and *vice versa.* Our intention, however, is not to criticize; but we could not forbear the above remarks, lest the evident inaccuracies should mislead some whose chemical information was not of sufficient extent to enable them to make the proper corrections.

"The aqueous solution neither changes the color of tournsol or curcuma, nor is it neutralized by either acids or alkalies. It forms, however, with these bodies a number of curious combinations. Nitric acid acts on Kreosote with a disengagement of red vapours. It combines with chlorine, bromine, iodine, phosphorus, and sulphur. Kreosote dissolves potassium, with a disengagement of gas, and the formation of potash, which remains combined with the thickened Kreosote, from which combination the latter substance may be separated by distillation, without any alteration. A small quantity of concentrated sulphuric acid colors Kreoste red; in larger quantities it blackens and thickens it. The acid is decomposed, and sulphur left free. Acetic acid appears to be its proper solvent, and combines with it in every proportion. With potassa Kreosote forms two combinations in the cold—one being an anhydrous liquid, of an oily consistence; the other a hydrate, which crystalizes in pearly white spangles. Its action upon soda is analogous. Carbonic acid decomposes both these compounds. Kreosote has a great affinity for lime and the hydrate of baryta, and forms with these bodies compounds of a dingy white color, soluble in water, which, when dried and powdered, are of a pale rose color. Ammonia dissolves Kreosote in the cold, is an almost constant attendant on it, and is separated from it with some trouble.

Kreosote dissolves a vast number of salts, some hot, others cold, and it combines in every proportion with alcohol, æther, carbonate of sulphur, (carburet of sulphur?) eupione, and acetic æther.

Of all organic bodies, it most actively attacks the resins, resinous coloring matter, and other similar principles. It even decomposes them cold, as well as totally dissolves them.

Kreosote immediately coagulates the white of an egg; a property upon which its efficacy is rationally founded. A single drop of it added to an aqueous solution of that substance, immediately fills the fluid with coagulated particles of albumen.

Fresh meat, placed for an hour in a solution of Kreosote, and well dried, may be exposed to the heat of the sun without putrefying; it will become hard *in about eight days,* and assume an agreeable odor of good smoked meat, of

a reddish brown color. Fish may be preserved by the same process, and birds killed by Kreosote were preserved a month and a half without any unpleasant smell.

Experiments instituted by Mr. Reichembach, to ascertain the action of Kreosote upon the serum, the coagulum, the coloring matter and pure fibrine of the blood, have induced him to conclude,

1st. That Kreosote coagulates the albumen of the blood,

2d. That this coagulation takes place immediately when the two liquids are concentrated,

3d. That it takes place little by little, when either is in quantity.

4th. That the fibrine separates itself from the other principles and is not attacked by the Kreosote.

It is said that the albumen, which is coagulated, will not putrefy; and the muscular fibre alone does not appear susceptible of putrefaction.

PREPARATION.

Two processes have been pointed out; one for the extraction of Kreosote from pyroligneous acid, the other from tar. I have no doubt the last process will furnish the greater quantity, and the extraction will be more easy.

Tar is produced from the dry distillation of organic bodies, beach wood, for example; this is distilled in an iron retort, until the residue has the consistence of black pitch. Care must be taken not to prolong the distillation, because the residue would again be carbonated, which would introduce into the liquid empyreumatic products, from which we are desirous to free it by this first distillation. The liquor caught in the receiver contains an acid empyreumatic water, which is to be rejected, and an oil, called oil of tar, which is afterwards placed in a glass retort, and rectified; it is requisite not to continue the distillation to dryness, and to reject the acid water again taken in the receiver. In these two distillations, the oil of tar, which first passes over at a low temperature, is light, though unequally so; but its gravity increases by heat. Attention is requisite to the time when the oil passes to the bottom of the water; all above this liquid contains but a small quantity of Kreosote; it contains principally eupione, with other different light substances, affecting the purity of Kreosote; all this supernatent liquor should therefore be rejected. In this state, the oil of tar is of a yellow pale color, heavier than water; it becomes brown by exposure to air; its smell is disagreeable; its taste is acid, caustic, sweet, and bitter, at the same time: it is then heated and agitated with carbonate of potash, until when shaken it no longer disengages carbonic acid; it is then decanted, in order to separate it from the solution of acetate of potash, which is formed, and it is again distilled in a glass retort. The distillation must not be continued to dryness, and all the first products which float on the surface of the water must be rejected.

The oil must then be dissolved in a solution of caustic potash, of the specific gravity of 1.12, much heat is disengaged; part of it is formed into eupione, &c., and is not dissolved: it swims on the surface, and must be taken from it. The alkaline solution is placed in an open vessel, and brought slowly to ebullition. It absorbs with avidity a considerable quantity of oxygen from the air: *an oxydizeable principle* which is found in it is decomposed by this absorption, *and the mixture becomes* brown. After cooling, by exposure to air, weak sul*phuric acid is to be* added, until the oil is set at liberty.

It is now distilled with water, to which a small quantity of caustic potash is added; this is necessary, to prevent the Kreosote from dissolving, and the loss of distilling over again and again the water which comes over; though the water is kept in strong ebullition, yet the operation advances but slowly. Kreosote being but slightly volatile even at 100 degrees of Cent.; but after some time, though we yet see much oil in the matrass, the quantity passing by distillation has much diminished, and increasing the fire does not advance the process, this is the time for stopping this distillation. The residue contains picamore, a small quantity of this substance carbonated with potash, sulphate of potash, a small quantity of acetate of the same base, and the coloring principle.

The oil in the receiver, is to be separated from the water which has passed over with it, and is to be dissolved a second time in a solution of potash of the specific gravity of 1.12. There yet remains a considerable quantity of light oil which will not dissolve, formed of eupione, &c., which should be rejected. It is then again heated slowly in a vessel open to the air, to ebullition, and suffered to cool gradually. It again becomes brown, but much less so. Sulphuric acid must again be added, and care must be taken this time to add it a little in excess, because the oil itself absorbs a small quantity, and afterwards it is to be frequently washed in cool water, until it is no longer acid. The distillation is to be repeated with water, to which now no potash is added, but a little phosphoric acid, in order to deprive the oil of the ammonia, which is yet retained.

Again, you proceed to the third solution of the oil in caustic potash. If the precautions pointed out have been well observed, these bodies will now combine without leaving a residue of eupione; and the mixture heated in the open air does not become brown; it only assumes a slight red tint. It is clear, however, when eupione and brown coloring matter, may still be separated by alkaline solution, making it necessary to repeat, a sufficient number of times, its solution in potash. In this state, though the Kreosote is not pure, yet it may be employed thus for medical purposes. In order to purify it, it is necessary first to distil it with water; without any addition afterwards rectify alone the product of this distillation, which is only a hydrate; at first, much water passes over into the receiver; while the same heat is continued its quantity decreases, little by little, and at last stops altogether; a small quantity of Kreosote distils at the same time; all the first products ought to be rejected, and the Kreosote should not be collected until it distils purely without water, but yet when the heat is raised to 203 Cent. The last result may be improved, by again once rectifying the product of this distillation and making the vapors pass over chloride of lime.

This preparation, the operations of which required so much attention, and were so tedious and complicated, M. Reichembach wished to simplify by means more expeditious; but Kreosote obtained in this manner excited violent vomiting when administered internally, whilst at the same time its action on the skin was considerably weakened. This effect was attributed to a particular substance contained in this impure Kreosote, which possessed emetic properties to an alarming degree. In fact, a single drop applied on the tongue, brought on in one minute great nausea, accompanied with trembling; the face became flushed, the eyes fixed and protruded; these were followed by violent

vomiting, after which the most complete prostration took place. M. Reichembach, satisfied that he could not in this manner prepare Kreosote with security, without first depriving it of its emetic principle, found himself obliged to recur to his original method, which he recommends to observe with conscientious fidelity, if it is wished not to bring suffering on the sick, and cast his medicine into discredit.

PHYSIOLOGICAL PROPERTIES.

Kreosote applied to the tongue excites violent pain; the organ seems contracted, is neither red nor tumefied. If the Kreosote be pure, most violent burning is produced, with a smoky taste which extends over the whole surface of the mouth, invades the pharynx, and penetrates as far as the nasal cavities. Placed on the skin, a sensation is excited similar to that of a slight burn; it excites rubefaction, and an erosion of the epidermis, which splits and falls off in little rough scales.

Plants watered with Kreosote die, and some spiders, flies, and little fish, thrown into two ounces of water, containing in solution twelve drops of Kreosote, did not live more than two minutes after immersion. The poisonous property is probably owing to the quality it possesses of coagulating albumen, and which makes it a preservative against putrefaction. The plants and animals which were spoken of perished no doubt of asphyxia, that is to say, by a suspension of the circulation.

A young dog, two months old, was able to take with impunity during eight days, eight ounces distilled water, containing four drops of Kreosote. During the eight days following he took double the quantity. This was followed by symptoms of walking slowly with apparent pain, frequent nausea, intermittent trembling, and a perceptible falling away. The use of Kreosote being suspended, all the functions resumed their natural healthy condition.

Administered in the dose of two drachms, to half an ounce of water, to another dog, it produced the most alarming symptoms. After his death, an immediate post mortem examination developed some very remarkable organic injuries. Every tissue except the liver exhaled strongly the odor of Kreosote.

Is death in such cases to be attributed to inflammation or coagulation of the blood?

To the author it appears to be equally referrible to both.

May it not exercise a special action on the nervous system, which has as yet escaped observation?

From the foregoing, it follows:

1st. That Kreosote exercises an essentially deleterious action on the animal economy.

2d. That in a weak dose it has relieved much functional derangement, whilst diffused in two or four times its weight of water its effects are immediately mortal.

3d. That it acts as an irritant on the surfaces to which it is applied, and

4th. That poisoning by this substance may be established by the redness of the mucous membrane of the stomach and intestines; by the thickness and peculiar color of the blood; by the property which the alimentary (matter from the stomach) matter has of coagulating the albumen of an egg; in addition to the characteristic odor of Kreosote, which is exhaled from every tissue exposed to investigation."

Therapeutic properties.—The author proceeds to the consideration of the qualities embraced under this head, by reviewing the former reputation of tar water, and recounting the various virtues attributed to that now almost obsolete remedy. We trust that the author has not incurred the liability of being compared in his administration of kreosote with the enthusiastic Bishop Berkely, whose estimation of tar water, he relates, was so strong as to induce him to wish that he was able to place himself sufficiently high, and had a voice strong enough to cry to all the infirm, "Drink tar water."

"At the time M. Reichembach discovered Kreosote, and when he thought he had confirmed by experiments the medical virtues which he first believed it to possess, he communicated his first observations to the physicians of Vienna, who received them with but little favor; this did not deter him from following with ardor the examination of his new medicine. His situation for attending to these experiments was not very advantageous. There was not, for many miles around him, a physician sufficiently scientific to write a rational direction to his experiments, follow critically their results, and arrange properly the observations. Nevertheless, with the assistance of a surgeon from the country, and an apothecary, he was enabled to operate in a certain number of remarkable cures.

The first trials were upon light burns, or chaps in children, and on wounds; the success obtained, induced him to try it for itch, for chronic eruptions on the skin, for corroding ulcers, gangrene, white swelling, caries, tooth-ache, trumatic sores, every kind of ulceration, cancerous and syphilitic, and even in phthysis pulmonalis, this scourge so redoubtable against even the most robust youth, was made to succumb to the use of Kreosote, in the cure of which, according to the report of Mr. Reichembach, he was successful beyond all hopes."

Twenty-five pages of the work are occupied in details of cases in which kreosote was employed, arranged under their respective titles, as burns, itch and tetter, chaps, gangrene, caries, tooth-ache, whitlow or felon, scrofulous ulcers, ulcerated white swelling, hæmoptysis, ulcerated syphilitic chancres, wounds, phthisis pulmonalis and catarrhs, engorgements, indurations and white swellings, recent wounds and hæmorrhages, &c. &c. As the modes in which the remedy was applied in all the cases are embraced in the following branch of the treatise, we have deemed it unnecessary to abstract any details, believing that the scientific physician will be fully enabled to apply the kreosote in any manner he may desire, from the general principles laid down.

"MANNER OF USING IT.

In the use of Kreosote, a certain course should be pursued, in suitable relation to its nature and activity. It is necessary to keep it within just bounds, between an action too strong and an action too weak, determined by the changes and progress of the healing.

My observations have demonstrated, says M. Reichembach, that for healing certain ulcers, tetters and wounds, the water of Kreosote often has been

applied with success; but we must remember, as the water only holds in solution about one eightieth part of Kreosote, there are stubborn cases requiring a more powerful action. We are then obliged to have recourse to pure Kreosote, which if employed to a certain extent, causes slight inflammation, but it is soon relieved; for this reason our physicians stop the employment of Kreosote on the ulcers, as soon as the inflammation is decided, and leave the wound at rest during some days; afterwards, they again apply Kreosote, and if the inflammation again shows itself, it must be arrested; they continue thus until the greenish colored pus changes to white, and the flesh at first blue or white, becomes red, and the diseased parts placed in a state for healing.

Many reason, that as Kreosote has much tendency to produce inflammation, they prefer employing it with energy on ulcers in the commencement, without regarding the pain; it being only great during a short time. This pain is also much less violent in the commencement; it increases in time in proportion as the Kreosote causes the return, in diseased parts, of a new vitality; thus we will do well to act with vigor in the beginning, in order that the patient may support readily the remedy. When by energetic treatment, the bad character of the ulcer is overcome, when it has assumed a healing red color, when granulations of a healthy nature are formed, we may be content to make applications of ointment or water of Kreosote, or may endeavor to favor healing by other dessicative means, without employing ulteriorly this substance.

Kreosote has been employed, sometimes pure and sometimes mixed with water, in all cases where there is ulceration, formation of enlarged productions, discharge of pus of an unhealthy nature, &c.: some drops are placed on emollient or resolutive cataplasms. In hæmorrhages, it may be applied drop by drop; but its effect is more sensible when applied on cotton or lint.

For lotions or frictions, it is mixed in the proportions of two, four or six drops in an ounce of distilled water, or in the same quantity of hog's lard. For internal use, one or two drops have been given in a julep of four ounces. We can, by means of evaporation by caloric, or simply with sheets of paper or compresses wet with Kreosote, form in the room or bed of a patient, an atmosphere of Kreosote. It may also be introduced by aid of an apparatus, such as Woulf's bottle, advantageously modified by Richard Desrues, pharmacien at Paris."

A portion of the work is devoted to the consideration of the use of soot as a "succedaneum of kreosote." As this subject has already appeared in our journal, page 215, we refer the reader to that article as containing a more full account of the use of that substitute.

Under the head of "contrary cases," the author states that "he has collected with much care and observation all the cases not tending to confirm the good effects of kreosote, from a persuasion that in order to appreciate in a precise manner the results obtained from the administration *of* any medicine, it is necessary to compare the successful effects with *the unsuccessful.*" In this we give him credit, and proceed to quote some *of the cases in* which it failed to produce the expected effects. He says,

"I have employed kreosote without benefit, in three cases of hæmorrhage caused by complete section of blood vessels of considerable size, and in two other cases in which there was simple incision of the same vessels." "Mr. Leperé found it unsuccessful in the treatment of syphilitic blotches of the skin." "Mr. Breschet used it for a cancerous ulcer of the nose. The day after its application, the ulcer changed its appearance and was cleansed; it was much better, but only remained so a few days, was stationary a short time, but now continues its ravages."

"M. Goupil cites two unsuccessful applications of kreosote in cases of fistula, accompanied with caries of the bone."

Martin Solon had under his care five patients, having phthisis with established cavities in the lungs. They used fumigations from kreosote diffused in water, without any sensible effect.

These are nearly all the exceptions stated, and we have quoted them at large, with a view to moderate the extravagant expectations which have been formed of the sanative properties of kreosote. That it has been and will be found highly useful in many cases where its use is recommended, it is far from our purpose to deny, nor would we willingly deter any one from administering it where there was a well founded hope of alleviating suffering or assuaging pain; but even our limited experience has taught us that many of the most vaunted of our remedies have owed their properties to the credulity of their admirers, and the *post hoc* has too frequently been mistaken for the *propter hoc.* It is therefore we consider a duty to put the case fairly before our readers, and while we are free to admit, that a new remedy possesses many properties of which we may advantageously avail ourselves, at the same time to present the reverse, that they may not too sanguinely rely upon its use to the exclusion of oft-tried and well established remedial means.

The mode of action of kreosote finally engages the attention of the author, and as regards that, he says the question is to him of little importance. "I present facts observed, and deduct (deduce) from them consequences, this is my only end." The hæmostatic agency of kreosote he attributes to its property of coagulating albumen, and we think justly. He is also disposed to attribute its influence over the cicatrization of ulcers and suppurating sores to the same cause. The ingenuity of his explanation of its mode of action in the cure of fungus granulations, &c. induces us to quote the text as follows:

"It is certain it destroys rapidly fungus granulations, hastens the separation of apthes and crusts covering the surface of certain wounds. Can we not admit by irritating the part on which it is applied, it there excites an eliminating operation, and by the formation of an albuminous pellicle, it establishes a line of demarkation between the living texture and the anormal products, the separation of which will soon take place, when they lose their vitality? Some practitioners to whom I have communicated this explanation, think it reasonable."

Its action in relieving expectoration in pulmonary catarrh and phthisis, and its operation on old syphilitic ulcers, he considers as questions of the highest interest, and that we should only enter on them with great reserve. "Their solution will remain doubtful until by multiplied experience some light is thrown on the subject."

The summary of the good effects of kreosote, we give in the author's own words, and having thus set out before our readers, the varied properties of the new remedy proposed for their use, with the following condensed view of its application to disease, we conceive we have accomplished what we proposed in the outset, to give them such an abstract, as would enable them to form definite ideas of the sanative properties of kreosote, and its claims to admission as a regular article of the materia medica.

"1 Kreosote produces good effects in burns of different degrees.

2. It heals in general ulcerated, furfurescent, squamous and crustaceous tetters.

3. It cicatrizes inveterate ulcers, arising from a syphilitic state of the constitution; it stops or diminishes the suppuration and destroys proud flesh, without altering in the least the adjoining texture.

4. It is useful in phthisis; not that it destroys the tuberculous concretions, which in the hard or soft state, act as extraneous bodies in the lungs, and become, if they are numerous, the cause of irreparable disorder; I wish only to say in cases of phthisis, it facilitates expectoration, to which it gives a favorable shade, and that it can cicatrize ulcerations of the bronchia, and some excavations of the parenchyma of the lungs.

5. Tumors, chronic indurations of the lymphatics, œdematous infiltration into the sub-cutaneous cellular tissue, are often terminated by resolution under the influence of Kreosote fomentations.

6. The success obtained from Kreosote in the cicatrization of fistulous passages, led me to presume, in case of blind external fistula, it might be tried advantageously, previous to the operation.

7. It almost always succeeds in calming the pain occasioned by carious teeth, but does not prevent its return; it will not stop the destruction of the teeth; its only effect on them is temporary.

8. It is certain, as a hæmostatic, Kreosote is a precious application; but it must be remarked it is only efficacious in capillary hæmorrhage, and bleeding from vessels of small calibre. Error in this particular should be avoided; the action of Kreosote in like cases is altogether mechanical.

9. Kreosote ought not to be employed in a continued manner; far from being useful, it aggravates the complaint, occasioning violent pains. It answers well to alternate with other applications; often with emollients, seldom with resolutives. Premature repelling by it may produce fatal consequences.

10. Finally, it produces decided relief, and sometimes unexpected cures, *even when all* other means have failed."

Should our labors meet the eye of the American translator, we trust *he will excuse the free* manner in which we have quoted and digested

his work. It appeared to us that he had not sufficiently obscured the French idiom in his translation, and we have therefore not used his words literally, although our abstracts are marked with inverted commas. It also appears to us that he has, in a few instances, not fully understood his text, and we have undertaken to render the phraseology as "we understand it." Our design not having been a literary criticism, we have not particularized the instances where they occur. We are of opinion, however, that should a second edition of his translation be required, that a careful revision will enable him to render it much more perfect in its literary character. To conclude, we recommend those who wish a particular knowledge of the subject to purchase the book, wherein they will find very interesting details of the many cases in which kreosote has been successfully employed as a curative agent. W. R. F.

On the Influence of Atmosphere and Locality; Change of Air and Climate; Seasons; Food; Clothing; Bathing; Exercise; Sleep; Corporeal and Intellectual Pursuits, &c. &c. on Human Health; Constituting Elements of Hygiène; By ROBLEY DUNGLISON, M.D. Professor of Materia Medica, &c. in the University of Maryland.

WE have repeatedly adverted to the progress of this work, and from the period of its first announcement, have looked forward with much interest, to the time when it should be published. We are now happy to have it in our power to furnish our readers with a brief review of Professor Dunglison's labors in the important department of medical science of which this book treats, merely premising, that our notice must be imperfect and unsatisfactory, as well on account of the difficulty of analysing an elementary treatise, as the impracticability of condensing, within such narrow bounds, the immense mass of valuable matter of which the present one is composed.

The objects of *Hygiène*, according to our author, is to inquire into the circumstances that may give rise to an aberration from health, or, in other words, into the influence of physical, and moral agents on healthy man: and thence to deduce the best means for preserving health, and for developing all the healthful energy of which the functions are capable.

The importance of these considerations has been acknowledged from the earliest periods of medical science, and duly impressed with it, the great father of physic himself, although ignorant of many of those physical laws of the universe which have been subsequently discovered and investigated, has furnished, in his treatise, *De aere, aqua, locis; De victus ratione; De morbe-passive grassantibus, &c.* some highly valuable information relating to the principles of *Hygiène*. It is to be regretted, however, that the subject is still too much neglected, both by the

medical faculty and the people at large. It should constitute an indispensable part of the education of the former; and the latter, if they would devote a little attention to its principles, might possess themselves of the means, at the expense of but little trouble, of warding off or mitigating many of the multitudinous sufferings to which their physical and moral relations render them liable. Those who devote themselves to the study of the medical profession, in this country especially, are too prone to begin at the wrong end. In their great desire to acquire a knowledge of the art of healing, they seem to forget, that a knowledge of disease forms an indispensable prelude to the successful application of remedies for their removal. Hence, instead of storing the mind with the valuable principles of anatomy, both healthy and pathological,—physiology, and general pathology, they at once direct their attention to general therapeutics, and apply all their energies in learning by rote, how many and what diseases this or that remedy has cured, while they remain alike ignorant of the properties of the remedy, or the nature of the malady. For this, the ordinary manuals are diligently thumbed over, and when the student has passed through the brief term of his pupilage, and is called to the bedside of the patient, to make an application of the rich store of knowledge which he supposes he has treasured up, he finds, when too late, that he has yet to learn the true principles of his profession. Our systems of medical education are radically defective, and this defect does not consist alone in the neglect of Hygiène, a knowledge of which is indispensable to qualify us for the important office of preventing disease, but in a total disregard, or inadequate attention to the whole of the fundamental branches, which are absolutely necessary to enable us to understand the pathological states of the system which we have to treat, and the proper method of applying remedies for their removal. The following observations of our author upon the necessity of possessing an adequate knowledge of Hygiène, are so true, that we deem no apology for extracting them necessary.

"In this country, and in Great Britain, Hygiène has not usually formed a distinct branch of University instruction, although in the different practical chairs it may have been noticed in a detached manner; but in continental Europe it has been formed into a separate subject; and—since the time of Hallé, more especially—a chair of public and private Hygiène has existed amongst the departments of medical science taught in the *Ecole de Médecine* of Paris;—'public Hygiène' being understood to comprise the study, as it relates to man collectively; whilst 'private Hygiène' applies to him individually. It is obvious, however, that this separation must be often forced and unnatural; although in many cases a clear line of demarcation may be drawn.

'*The little* regard,' says a recent and intelligent writer, 'which has hitherto *been paid to the laws* of the human constitution, as the true basis on which our *attempts to improve* the condition of man ought to rest, will be obvious from *the fact, that, notwithstanding* the direct uses, to which a knowledge of the

conditions which regulate the healthy action of the bodily organs, may be applied in the prevention, detection, and treatment of disease, there is scarcely a medical school in this country (Great Britain,) in which any special provision is made for teaching it; the pupil being left to elaborate it for himself from amid information communicated to him for other purposes. In some of the foreign Universities, chairs have been instituted for this purpose; and in France, a journal of Hygiène has existed for a short time. But in this country, with the exception of Sir John Sinclair's elaborate *Code of Health*, and one or two other publications of a late date, the subject has never been treated with any thing like the regard which it assuredly deserves. In one point of view, indeed, the omission is not so very extraordinary as it may at first sight appear. The prominent aim of medicine being to discriminate, and to cure *diseases*, both the teacher and the student naturally fix upon that as their chief object; and are consequently apt to overlook the indirect, but substantial aid, which an acquaintance with the laws of health is calculated to afford, in restoring the sick, as well as in preserving the healthy from disease. It is true, that almost every medical man, sooner or later, works out this knowledge for himself; but, in general, he attains it later than he ought to do, and seldom so completely as he would have done had it been made a part of his elementary education, to which he saw others attach importance. In my own instance, it was only when entering upon practice, that I had first occasion to feel, and to observe the evils arising from the ignorance, which prevails in society in regard to it."*

Every practitioner must have occasionally experienced the same embarrassments as Dr. Combe; and it was under feelings similar to those he has expressed relative to the utility of the department of Hygiène, that it was introduced into the University of Maryland, as a part of the duties assigned to the chair, which the author holds in that Institution."

The work under review is divided into seven chapters, which are preceded by a physiological proem, and followed by a supplementary chapter, in which is contained some medico-legal disquisitions relative to malaria. The enumeration of the heads of these chapters will serve to indicate the order in which Professor Dunglison has treated his subject, and the range of topics which he has brought under discussion. They are *Atmosphere and Locality; Food; Clothing; Bathing; Exercise; Sleep; Corporeal and Mental Occupations.* Each chapter is divided into sections, under which the several divisions of these subjects are considered.

The precise extent to which the human body is affected by increased or diminished pressure has not been satisfactorily ascertained. The results of investigations are so contradictory, and the modifications produced by collateral circumstances so numerous, that it is difficult to arrive at certain conclusions. The ordinary pressure at the surface of the ocean, has been estimated at fifteen pounds avoirdupois, upon every

* The principles of physiology, applied to the preservation of health, and to the improvement of physical and mental education. By Andrew Combe, M.D. New York edit. 1834, p. iii.

square inch. Man has never been able to penetrate to a sufficient depth below the surface, to experience how far a considerable increase of pressure might influence his health or comfort. Upon this point, our author observes—

"Our acquaintance with the effect of great augmentation in the density of the air is more limited, than with that of diminution in its density. The only means we possess of observing the former is in mines penetrating far beneath the surface; and perhaps in no case have these exceeded a league, and that not in perpendicular depth; whilst the phenomena, attendant upon a sudden passage into a rarer atmosphere, have been observed at nearly 23,000 feet, or upwards of four miles perpendicular height. Where the weight of the air is much increased, as in mines, it is fair to presume that the respiration should be slower on account of the same quantity of oxygen being contained in a smaller bulk of air. It has been presumed, also, that the greater density of the air may constrain the inspiratory movements, so as to render them less frequent; but this, although specious, is conjectural."

While on this subject, we will subjoin the results of some experiments recently made by M. Junod, shewing the influence of increased atmospheric presssure.

"If the atmospheric pressure is augmented by one half, the phenomena observed are:—

1st. Sensation of pressure on the tympanum which is driven inward: this gradually disappears as the equilibrium is re-established.

2d. Easier play of the respiration, deep and less frequent inspiration: in a quarter of an hour agreeable warmth of the chest, as if the pulmonary areolæ, hitherto incapable of respiration, dilated to receive the air.

3d. Pulse somewhat frequent, full, and not easily compressed: the superficial veins flaccid and even completely obliterated, so that the blood seems to return to the heart by the deep seated veins.

4th. Functions of the brain more active, the imagination vivid, &c.; in some a sensation of drunkenness.

5th. This increase of inervation affects the muscular system, the movements of which are easier and more precise.

6th. Digestive functions more active: no thirst.

7th. Salivary, renal and glandular secretion in general more copious."*

More opportunities exist for determining the influence of diminished pressure, yet even upon this point, reports and opinions are at variance; some ascribing the uncomfortable feelings experienced on ascending lofty mountains to fatigue, while others attribute them to diminished pressure. Cussini has even affirmed, that animals cannot exist at the height of 15,640 feet English; and Stevens remarks—

"I have been high enough on the Andes to have felt this difficulty had it really existed; but when I had ascended to the top of a very high mountain, after a little rest, I could breathe as freely as I had done in the morning, in a *plain nearly on* a level with the ocean. When we ascend, the cold increases *exactly in proportion* to the diminution of the atmospheric pressure; and the *density in the air*, produced by the cold, prevents that rarefaction in the

* *North American* Archives of Med. and Surg. Science, No. 5, p. 370.

atmosphere and difficulty of breathing which, except for this circumstance, would certainly occur. But, from the increased density produced by the cold in the higher atmosphere, it is probable that the air, even on the top of the highest mountain, contains nearly as much oxygen in the same volume, as that which exists on the surface of the sea."*

On the other hand, it has been rendered probable by "De Sayre, De Saussure, Hamel, Raymond, Von Humboldt and numerous others, that fatigue could have had but little or no agency; and what strikingly exhibits the accuracy of their deduction is, that the same inconveniences were sustained by Gay Lussac in his celebrated ærial voyage, when he ascended to the height of 21,735 French feet."

The experiments of M. Junod already referred to, prove that the feelings in question are neither imaginary or dependent upon temperature.

"When the atmospheric pressure is diminished by one quarter, the inverse of the above are observed; that is, distension of the tympanum, producing a sensation resembling pressure, which is also dissipated by the renewal of the equilibrium; impeded respiration, short and frequent inspiration, often dyspnœa, pulse full, compressible, frequent; turgescence of the superficial vessels of the eyelids and the lips; frequently hæmorrhage with tendency to syncope, disagreeable heat of the skin, the functions of which are increased in activity; enfeebled inervation and muscular power, diminution of the glandular secretions."†

Still it may be justly contended, that although much distress and even hazard may be incurred by a sudden transition from a very dense to a very rare atmosphere, the constitution possesses the faculty of accommodation to such an extent, as to endure even a very greatly diminished pressure without any mischievous consequences. The following observations of the author may be adduced in corroboration of this assertion.

"The highest town, of any extent, on the earth is Potosi, in Bolivia, celebrated for the mines in its vicinity. It is 13,265 feet above the level of the Pacific ocean. Two hundred years ago, it is said to have contained 160,000 inhabitants, but the number is not now greater than 12,000. Perhaps the highest inhabited spot on this hemisphere is the farm of Antisana in Quito, the elevation of which is 13,400 feet. Yet the human family are capable of subsisting at these lofty elevations with the same facility as amidst the arctic snows when once habituated to them;—inconvenience being felt by new settlers only, and even these, by the gradual ascent, have the different organs accommodated to the new external relations."

The observations on temperature are highly interesting. The facility with which the animal economy adapts itself to thermometrical changes of the atmosphere is well known, as is also its remarkable capability to maintain the same temperature under all degrees of heat and cold compatible with the preservation of life. Yet with all this plastic and con-

* Observations on the healthy and diseased proportions of the blood, p. 61. London, 1832.

† *North* American Archives.

servative power, sudden changes of temperature are exceedingly detrimental to health. Bad effects may result from either a sudden elevation or depression of heat, and those latitudes in which the degree of variation is the greatest, are always more unhealthy, as regards particular classes of diseases, than those which are more equable and steady. In the following observations of Professor Dunglison, relative to the manner in which the elevated temperature of torrid regions gives rise to disease we cannot concur:—

"The constant evaporation by cutaneous and pulmonary transpiration maintains the absorbents of the intestines in a state of irregular erethism, and hence disposed to assume a morbid condition under favorable exciting influences. In this way we account for the various derangements in the mucous membrane of the intestinal tube, which are so frequent in warm climates, and seasons;—diarrhœa, dysentery, cholera, &c. with those universal attendants upon inflammation of the upper portion of the small intestine,—liver diseases."

Simple evaporation by the pulmonary and cutaneous transpiration, is not, we are inclined to think, competent to produce the effects attributed to it, and we doubt much if the morbid condition of the different organs "disposed to take place under favorable exciting influences, does not originate in some other source than the "state of irregular erethism of the absorbents." We think it probable, indeed, that the author has not fully expressed his meaning, especially as further on, he speaks of elevated temperature impairing nervous energy.

But while we object to this doctrinal point, we fully concur in the following, which is not as much attended to as it deserves—

"The excitement, prevailing in the lining membrane of the duodenum, into which the biliary ducts pour their bile, is propagated along those ducts, and arouses the liver to inordinate secretion, or produces other functional, or organic diseases in that viscus. This state of irritation of the duodenum, induced too often by undue quantity, or quality of aliment, is that of nine-tenths of the affuctions termed *bilious*. A person, after having dined heartily on a substance difficult of digestion, is affected with heartburn, distension, flatulence, great uneasiness, and constant eructation; yet, although the cause is manifest, he prefers to have the symptoms ascribed to a predominance of bile, rather than to a circumstance, the belief in which would tend to curtail him in the slightest degree of his enjoyments; and thus we hear of *bile*, instead of *goose*, *duck*, &c. in the stomach."

We shall pass over the observations on the effects of low temperature, hygrometric conditions, atmospherical vicissitudes, light and electricity, merely with the remark, that they contain many valuable reflections.

The next section, which treats of atmospheric vitiations, embraces topics upon which much speculation has been expended, but without *eliciting much* positive information. This is more especially true of *those imponderable* terrestial emanations, which are so destructive of *human life, yet so* subtle as to elude alike the most searching test of the

chemist, and the delicate indications of the eudiometer. Independently of these, however, there are atmospherical vitiations of which we can form a more accurate appreciation.

Illustrative of the fatal effects which arise from an atmosphere vitiated by the respiration of a number of individuals, crowded into a confined place incapable of ventilation, Professor Dunglison refers to the melancholy and well known instances of the black hole of Calcutta, and Saint Martin's round house in London. The carbonic acid gas generated in such cases, being heavier than atmospheric air, accumulates below the apertures through which ventilation might take place, and cannot consequently be displaced by the ingress of fresh air. Examples of the deleterious effects of carbonic acid gas are too numerous to require a particular notice. The same remarks may be made of carburetted hydrogen, or *fire damp*, which before the discovery of the safety lamp by Sir Humphrey Davy, proved so destructive to miners. The following remarks are highly important:

"Sulphuretted hydrogen is an extremely deleterious gas, killing instantly when respired in a pure state, and it is so powerfully penetrant that it is sufficient to place an animal in a bag of the gas, without any approaching the mouth, for it to act fatally. Even when mixed with a considerable portion of air it may prove destructive. Dr. Paris refers to the case of a chemist of his acquaintance who was suddenly deprived of sense, as he stood over a pneumatic trough in which he was collecting the gas; and from the experiments of Thénard and Dupuytren it would seem, that air containing a thousandth part of sulphuretted hydrogen kills birds immediately. A dog perished in air containing one-hundredth part, and a horse in air containing one-fiftieth. When breathed in a more diluted state, it produces powerfully sedative effects, the pulse being rendered extremely small and weak; the contractility of the muscular organs considerably enfeebled, with stupor, and more or less suspension of the cerebral functions; and if the person recovers, he gains his strength very tardily. Fortunately, we possess, in chlorine and the chlorides, agents capable of acting chemically on this substance, and of completely removing all deleterious agency. There is, consequently, no reason why injurious consequences should result from the requisite operations of emptying the privies, which is an extensive business in many large towns, especially in such as are not well provided with water, and with common sewers."

There is perhaps no more frequent cause of complaint in large cities, than the unpleasant, and occasionally offensive, emanations, which are generated by certain trades and occupations. Scarcely a year passes that there is not a presentation of some establishment of this kind, and ignorance upon such subjects, has often led to protracted and expensive litigation. The following observations, therefore, are valuable, as pertaining to a branch of public hygiène or medical police:

"The air is apt to be loaded with *emanations* from animal and vegetable substances in a state of decomposition; and there are many trades—such as those of the gutspinner, the hartshorn manufacturer, the dealer in cat's and *dog's meat*, technically called a knacker—which are carried on in putridity,

but we shall endeavour to shew, that the admixture of such emanations with the air does not affect public salubrity to such an extent as might be imagined, although the nervous, and the delicate, before they become accustomed to the offensive odours, may be more or less disagreeably impressed. The same may be said of butcheries, dissecting rooms, and cemeteries."

Professor Dunglison has discussed, at some length, the doctrines generally entertained on the subject of malaria.

"By some writers," he observes, "it has been ascribed to vegetable putrefaction; by others to aqueous or to animal putrefaction, or to different combinations of these; but we shall attempt to show that there is no positive—no historical evidence—that any one, or any combination, of these varieties of putrefaction does ever occasion, even in marshy districts where the poison exists in the greatest abundance, malarious or miasmatic disease."

He examines the leading arguments which have been advanced in support of each of these opinions, and places in opposition to them the numerous facts which have been collected by Ferguson, and others, in support of an opposite opinion. He appeals to the instances related by the author just referred to, of the extensive prevalence of intermittents on the sandy plains of South Holland, and in different parts of Spain, where the soil was either a bed of sand, destitute of all admixture of vegetable matter, or perfectly exsiccated by solar heat, with its vegetation "burnt up, and its putrefaction rendered as impossible as the putrefaction of an Egyptian mummy." Dr. Ferguson remarks "that, in the most unhealthy parts of Spain, we may in vain, towards the close of summer, look for lakes, marshes, ditches, pools, or even vegetation," and that, although as prolific of endemic fever as Walcheren, it is one of the driest countries in Europe. Professor Dunglison adds to these arguments, the important one, that in many situations where vegetable matter is most exuberant, where it is constantly undergoing the process of decomposition, malarious diseases are frequently unknown. He thinks,

"Our knowledge on all this matter seems to be limited to the fact, that in particular climates, and under certain unknown and inappreciable circumstances, the bottoms of our stagnant pools, mill-ponds, marshes, &c. become miasmatic—a knowledge which we acquire by lamentable experience, and by that alone—that the soil becomes more or less exposed by the evaporation of the water in summer and autumn; and, during the heats of the latter season more especially, it gives off the mysterious, subtile, and pestiferous agent, which we call *malaria.*"

The author objects, we think properly, to the opinion of Professor Charles Caldwell, who seems to think that the decomposition of succulent vegetables is not the only source of these emanations, but that even *the dissolution* of timber which has been dry, when exposed to moisture, *may become a source* of them. We question very much if the wooden *facings of which* wharves are composed, ever become a source of mias-

mata, or that the mere decomposition of vegetable matter, in any form can generate them. If this were their source, the pioneers of our overgrown forests, who, during the first years of their residence, are literally surrounded by masses of decaying vegetable matter, resulting from the gradual destruction of the timber which is merely *belted*, and suffered to meet destruction by time, would certainly fall martyrs to the poisonous exhalations to which they are exposed. Yet, in many places where other causes do not exist, they remain perfectly healthy. We should, indeed, as Professor Dunglison has correctly remarked, be constantly exposed, in our ordinary habitations, to insalubrious exhalations, and ever liable to malarious diseases. Every house covered with shingles, every wooden dwelling, especially if surrounded by dead trees, &c. ought to be a prey to them. Professor Caldwell has in this matter adopted a hypothesis which, so far as we can perceive, is not supported by a single fact, or a single tittle of evidence, which has the slightest claim to be considered valid. We will, indeed, make the same remark with regard to all the modifications of the hypothesis which maintains the vegetable origin of malaria; and that which refers it to animal decomposition rests upon evidence still more slender.

In the next section we have some interesting observations on the influence of locality, and the salubrity of soils; also on the comparative mortality of different countries, illustrated by numerous tables. These we shall be obliged to pass over. As regards those localities or soils which are most apt to generate malaria, although we may generally regard marshes as the most abundant source of these emanations, we have no positive means of determining by mere examination, or even by chemical analysis, what localities or soils will be healthy or unhealthy. Italy presents a melancholy example of this truth, where

> "In florid beauty groves and fields appear,
> Man seems the only growth that dwindles here."

The observations of Professor Dunglison on change of air, and on the influence of the seasons, contain much useful information, for which we must refer to the work itself.

On the subject of residence, we are rejoiced to see that Professor Dunglison has supported the claims of St. Augustine, as a winter residence for invalids. This is a subject upon which we think every American ought to feel much interest; but we regret to see, that in relation to this point, as well as most others which are American, those who should be most ready to appreciate the benefits Providence has put at our disposal, and the innumerable advantages our wide extended country affords, are the first to decry them. Nothing that is American possesses any value in the estimation of ourselves, and in our perpetual longing after things beyond seas, we spurn and neglect benefits at home, possessed perhaps by no other country on earth.

This feeling is carried to such an extent in the United States, as to exercise a most pernicious influence. Our climate, which in some respects is confessedly bad, is painted in such distorted colors, even by Americans, that the invalid is taught to believe his only salvation rests in fleeing his natal country, and seeking health under the far famed skies of some foreign land. Nothing short of a voyage to those healthful regions will suffice, and in the prosecution of this one object, when all is gone but hope, he tears himself from home and friends, to seek renovated existence in a climate generally more inimical to health than many he leaves behind. Even the damp and murky skies of England are often preferred to the mild and balmy air of some of the southern parts of our country; and we have known many persons, laboring under the inceptive stage of phthisis, hasten the fatal termination of the disease by visiting Europe, in quest of those benefits which they have in the end failed to find, but which they might at first have realized at home. In relation to St. Augustine, we do not speak unadvisedly. As a winter residence for those who are affected with the stages of phthisis for which climate is capable of doing any thing, we unhesitatingly declare, that we know of no part of Europe superior to it, and we believe that there are few capable of affording the same advantages. We have seen its benefits most unequivocally displayed; and where that regard is had to the condition of disease, which should always be observed in seeking the benefits of change of climate, we believe it will accomplish as much as almost any other. That it has not restored those who have gone there laboring under purulent expectoration, and worn out by hectic, is no argument against it, for what climate can restore organs which the ravages of disease have destroyed? That it may be liable to the objection of being exposed to the chilling easterly winds, setting in occasionally from the ocean, we will not deny; but these are seldom of so bleak a character as to be injurious, and they are more than counterbalanced by other advantages. There may be, likewise, some want of comfort; but this is the fault of the people, and not the place. Let but a tithe of the sums which are uselessly squandered in visiting foreign countries for health, be directed to St. Augustine, and then all those comforts will be afforded which the invalid can require. We think the able and candid letter of Dr. Porcher, which Professor Dunglison has introduced upon the subject of the climate of St. Augustine, cannot fail to satisfy those upon whom facts can exercise any influence. There are those, however, unfortunately not few in number, who are so blinded by a species of idolatry for European customs, and every thing European, that neither facts nor arguments will exercise any influence upon them, when the principle involved is any thing pertaining to their own country.

Professor Dunglison has taken a general view of the subject of ***residence and change*** of climate, and has in this portion of his work con-

densed a great fund of useful information, which we shall be obliged to pass over.

We shall also pass over the chapter on food. It contains much interesting matter, and several tables are appended, shewing, from experiments, the comparative digestibility of different aliments. Many of these results are valuable, yet they cannot be erected into fixed and unvarying laws, on account of the extent to which such experiments must be influenced by collateral circumstances. We should be pleased to select some parts of the author's observations upon these points, but the subject is already worn thread-bare by the innumerable *manuals* for the preservation of health, with which the public has been inundated within a few years. Strongly as we reprobate the vice of intemperance, we concur fully with the author in the following remarks, relative to the noble exertions of those who are doing so much to correct the evil.

"Too often, in their laudable enthusiasm, the writers on the great subject of temperance have quitted the strong moral basis on which the abuse of ardent spirit rests, and have attempted to shew, upon data totally inadequate, the physical evils, that result from the occasional moderate use, not only of ardent spirits, but of wine, and almost every variety of fermented liquor."

The author makes some good remarks on the use of tobacco, but we have not room to notice them. We shall be prevented, by the same cause, from taking any notice of the chapters on clothing, bathing, exercise, sleep, &c., further than to observe that they contain much valuable information.

On the subject of mental occupations, we think the following remark is not sufficiently qualified:

"Few are injured by study, unless the frame is unusually excitable, or the mental application unusually protracted."

We are free to confess, that many individuals may devote themselves with ardor to intellectual pursuits, throughout a long life, without experiencing much more injury than what may be reasonably attributed to a sedentary habit; yet we know some instances to the contrary, even where the frame has not been "unusually excitable," nor the pursuits carried to that extent to which they frequently are by some of our philosophic Germanic brethren. We think we could adduce not a few facts to corroborate our opinion, did our limits permit; since there are, as we suspect, too many, who, under the influence of the incessant cerebral excitement which is kept up under intense and protracted intellectual exercise, find their digestive functions gradually undermined, and in the end have their whole nervous sytem involved in a morbid disarray, which disturbs the natural play of the organs, and lays the foundation for a long catalogue of diseases. Notwithstanding our author's objections, we think there is some truth in the remark quoted from Pinel: that "men of exalted intellect perish by their brains," and that "such is the noble end of those

whose genius procures for them that immortality, which so many ardently desire."

We subjoin the following extract, partly on account of the truth of the principles, and partly to show the importance of observing some regularity or system in intellectual pursuits.

"But although to an overwhelming proportion of those who devote themselves to quiet and regular intellectual pursuits, and who attend properly to collateral circumstances, the excitement of the brain may be salutary rather than prejudicial, there may be a few—a very few—who experience mischief from close mental application. Such are they, as we have said, of frames unusually impressible, and in whom, when any organ is thrown into unwonted exercise, a sudden afflux to it of vital energy ensues, which, in the case of the brain, might give rise to headache, confusion of thought, with the whole train of nervous symptoms. The individuals thus circumstanced, we say are few, although it is a common excuse, urged by such as are indisposed to intellectual application, and is generally received as valid. The evil, too, may be greatly obviated by habit—by never forcing the intellectual powers, but bending them daily to their object, until they become accustomed to the exercise; and being especially careful not to permit them to interfere with those collateral agencies, the regularity of whose application is essential to health. When the mind is well disciplined, it is surprising what may be accomplished by a proper use of time. No one, in modern times, has surpassed, in productive capabilities, Sir Walter Scott: yet, by proper economy of time, he was enabled to avail himself, as fully as the most unoccupied, of the pleasures of social and domestic intercourse. When asked by Captain Hall, how many hours a day he could write for the press with effect, he replied: "I reckon five hours and a half a day is very good work for the mind, when it is engaged in original composition. I can very seldom reach six hours, and I suspect that what is written after five or six hours' hard mental labor is not worth much." On being asked how he divided those hours, he said: "I try to get two or three of them before breakfast, the remainder as soon after as may be, so as to leave the afternoon free to walk, or ride, or read, or be idle."

We must here bring our imperfect notice to a close, not for the want of interesting matter to select, but because we have not space to devote to a more extended analysis. To compensate for this, we must refer to the book itself. Professor Dunglison has displayed much judgment and ability in selecting and digesting his materials, and has furnished a better exposition of the elements of hygiène, than can be any where found in the English language.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. *Homœopathic Experiments.*—M. Andral, at the Hôpital de la Pitié, has been putting to the test of experiment the homœopathic doctrine since November. These experiments are not yet concluded, but we shall give the results as far as they go, which are quite conclusive against the views of Hahnemann. M. Andral treated the patients submitted to homœopathic strictly in accordance with Hahnemann's principles. The symptoms were combatted by medicines, the special properties of which were pointed out by the German physician, and which, to insure the greatest exactness, were made up at the establishment of Guibourt, to which the homœopathic physicians send their patients. The regimen was carefully watched, and was altogether in accordance with that recommended by Hahnemann. It was composed of broth without salt or vegetables, of paps or of milk pottages, and when the patients could eat, they were allowed bread and wine, meat which had served to make broth, and roast, rarely fish. Vegetables were never given to them, nor was any of their food seasoned. For drink they had sugar and water. During the treatment all external medication was interdicted. It is impossible with all these precautions, not to have sufficient *data* to judge of the doctrine, especially when the facts are so numerous, and the physician so acute. The facts were collected with the most minute attention by M. Vernois, one of the *internes*.

In fifty-four applications of the homœopathic treatment, eight patients alone derived any benefit, which continued without the use of any other plan of treatment, and forty-six were as bad some days after the administration of the globules as before. It ought, however, to be mentioned, that the state of seven of them was slightly ameliorated on the morning after they took the medicine. But what were these cases? The first was a case of intercurrent pain, which had existed for some days; the second was a case of *angina*; the third one of rheumatic pains; the fourth, intercurrent cephalgia in a phthisical patient; the fifth was a case of stunning in a man subject to cerebral congestion; the sixth a case of diarrhœa following constipation; the seventh one of rheumatism at the 18th day; and eighth, a case of a slight pain which came on during chronic *gastro-enteritis*.

The medicines employed by M. Andral, were *aconitum, arnica, belladonna*, bryony, camphor, camomile, *colchicum, ipecacuanha, hyoscyamus, opium*, soluble mercury, *nux-vomica*, metallic lead, *Pulsatilla nigricans*, and tin.

From the month of January, M. Andral treated thirty-five patients on homœopathic principles. Of these, eighteen were men, and seventeen women. Five were submitted to the *aconitum*, four to the *arnica*, five to *belladonna*, five to bryony, one to camomile, three to colchicum, three to hyoscyamus, one to opium, two to soluble mercury, three to *nux-vomica*, one to lead, and two to the *Pulsatilla nigricans*. We throw the results, &c. into a table.

Case	*Medicinal Substance.*	*Disease.*	*Predominant Symptoms.*	*Effects.*
1	Aconitum, 24th dilut.	Gastritis.	Intense fever.	2 pulsats. less in the 24 h. & variola in morning.
2	do.	Intense quotid. fever.	Impulse of the heart.	None.
3	do.	Acute amygdalitis.	Intense fever.	Lowering of the pulse & dimin. of the disease.
4	do.	Tubercles.	Frequency of pulse.	Diminution of the pulse.
5	do.	Acute arthritis.	Do.	Severe headache.
6	Arnica, 6th dilut.	Pulmon. tubercles.	Violent stunnings. (*violens etourdissemt.*)	None.
7	do.	Cerebral congestion.	Strong stunnings.	The patient declared himself immed. relieved.
8	do.	Dropsy of pericard.	Stunning & vertigo.	None.
9	do.	Dysmenorrhœa and chronic gastritis.	Most inten. headache.	No immediate effect, amelioration, 3d day.
10	Belladonna, 24th dilut.	Hemiplegia.	Disturb. of vision.	None.
11	do.	Bronchitis.	Obstinate cough.	do
12	do.	do.	do.	do.
13	do.	Affec. of optic nerve.	Considerable disturbance of vision.	do.
14	do.	Affection of heart.	Stunning.	do.
15	Bryony, 30th. dilut.	Intermittent fever.	Wandering pains.	do.
16	do.	Hypertro. of heart.	Severe pain in the *epigastrium.*	do.
17	do.	Acute arthritis.	Pain in the shoulder.	do.
18	do.	Pleurodynia, bron.	Cont. fits of coughing.	do.
19	do.	Chron. gastro-enter.	Severe pain in left knee and shoulder.	do.
20	Colchicum, 15th dilut.	Acute arthritis.	Severe pain, with redness and swel. of the two wrists.	Diminution of the pains.
21	do.	Lumbago.	Viol. pains in loins.	None. Patient was bled.
22	do.	Pulmon. tubercles.	Not on the left side.	Diminution of pain.
23	Hyoscyam. 12th dilut.	do. do.	Violent cough.	None.
24	do.	Bronchitis pleuritis.	do.	do.
25	do.	Bronchitis.	do.	do.
26	Soluble mer. 6th dilut.	Mercurial tremb.	Of the superior and inferior members.	do.
27	do.	Syphilis & ulcerats.	Of glans.	do. Ulceration increased, destroyed frœnum, and was stopped only by mercur. oint.
28	Nux vomica. 24th dilut.	Dysmenorrhœa and chronic gastritis.	Severe difficulty of breathing.	do.
29	do.	do.	Dyspepsia.	do.
30	do.	Amenorrhœa.	Desire of vomiting.	do.
31	Pulsat. nigr. 24th dilut.	Chron. gastro-enter.	Diarrhœa.	More sensible.
32	do.	Chronic gastritis.	Colics & Diarrhœa.	None.
33	Camomile, *12th dilut.*	Diarrhœa.	Without colic.	do.
34	*Opium, 6th dilut.*	*Affect. of the uterus, and of the heart.*	Obstinate constipat.	do.
35	*Metal. lead.*	*Obstinate constipat.*	For eight days.	do. The constipat. yielded to purgatives.

From the above facts, it would appear that the homœopathic plan of treating diseases is totally inert, and can be useful only as a *placebo* to hypochondriacs and nervous women, by relieving them from swallowing the manifold drugs with which they think it their duty to burden their stomachs.—*Bulletin Générale Therapeutique.—Ed. Med. and Surg. Jour. Oct.* 1834.

---

2. *Case of Spinal Irritation.* By S. S. Walker.—April 1st, 1833, I was called to see Mrs. A———, the mother of four children—of strumous habit; said to be almost dead with consumption. I found her sitting in a chair, pale, weak and emaciated, and panting for breath, as though excessively fatigued. She had violent palpitations of the heart; fits of asthma at night, and occasionally exacerbation of fever, followed by copious sweats. There were neuralgic pains in the side, neck, &c. with a sense of constriction across the breast; quick hurried respiration; violent cough in the mornings, with mucous expectoration; gastralgia and other symptoms of indigestion, with colic pains; universal and excessive tremors, with a weak voice, and a hurried and fearful manner of speaking. Examined her spine—found the last dorsal and the first lumbar vertebra slightly distorted by a fall from a wagon, twelve years previous, and extremely tender to the touch; the pains on pressure seemed to strike through her, and were reflected principally upon her breast, diaphragm, and stomach.

I applied three cups over the seat of irritation, and took eight ounces of blood. The tremors ceased before the cups were done drawing. I then applied a blister, and gave her the following: ℞ Blue Mass. gr. 8. Pulv. Dov. gr. 12, at night, to be followed with Seidlitz pulv. in the morning. Called in three days after, and found her so far restored as to decline any further services. The symptoms of indigestion, cough, nervous excitement, &c. left her in a few days completely restored to health.—*Western Medical Gazette, January*, 1835.

---

3. *Sick or Nervous Headache.* By M. H. Houston, M.D.—It has been usual, and is perhaps generally the practice, to prescribe the free use of cathartics in this affection. We cannot but think this practice has been abused. The remote cause of the disease is irritability of the system from impaired digestion. Now, cathartics of all kinds, however gentle in their operation, and however judiciously administered, have the effect, if given alone, of impairing in a greater or less degree the tone of the stomach and bowels; and as want of tone in these organs is the cause of that irritability of system upon which the disease depends, these remedies, by increasing the predisposing cause, must always do harm. In order to prove serviceable, they must be judiciously combined with tonics. As to their use during the paroxysm—before such as should be administered will have time to operate, the disease will get well of itself.

From the pathological views we have laid down, the objects to be had in view during the paroxysm, are to allay the irritability of the stomach, and with it that of the general system—to arrest the morbid secretions from this organ, and by imparting tone, to excite it into healthy action. These purposes are best accomplished by a combination of tonic and anodyne medicines. The

articles which I have found most prompt and efficient in their action, are the sulph. or acet. Morphia, and the sulph. Quinine.

From what has been said, the modus operandi of these medicines will be readily comprehended. The promptitude and permanency of the relief afforded by them, are as gratifying to the physician as they are often joyful and unexpected to the patient. A pill composed of from one sixth to one fourth gr. Morphia, with from 2 to 4 of Quinine, should be taken at the onset of the paroxysm, and repeated in an hour or two, if relief is not obtained by the first dose. The Quinine and Morphia may be made into pill with the extr. Gentian. I do not pretend to say that this treatment will relieve in all cases, but I hesitate not to pronounce it the most efficacious of any I have as yet seen adopted.

In some cases attended with harshness and dryness of the skin, to the above pill I have added, with good effect, 1 gr. of Ipecac,* and occasionally, when costiveness existed, 1 or 2 grs. of Aloes. The relief generally perceptible in from ten to twenty minutes.

A gentleman who had long suffered from repeated attacks of the disease in its worst form, and who, with the advice of several physicians had used cathartics of different kinds, with the effect only of increasing the frequency of the paroxysms, applied to me whilst laboring under a violent attack of the disease. As there were indications of acidity present, I gave him some Carb. Sodæ† in solution, and one of the above pills. In fifteen minutes the relief was complete,—he said I had practiced upon him a "*charm*," and it was with difficulty he could be persuaded, that for that day, at least, he would have no return of the headache. It did not return, however, and he has since used the pills and prescribed them to his friends in different parts of the country, similarly afflicted, and as he says himself, with never-failing success.

The pills seem to have no effect in increasing the disposition to costiveness, but rather the reverse. They also have appeared to me to lengthen the intervals between the paroxysms, and to assist materially in the complete eradication of the disease.

The means best adapted to prevent the recurrence of the paroxysms, are the proper regulation of the bowels, by diet, if possible, if not, by very gentle laxatives, and the constant use of some mild vegetable tonic. As a laxative, aloes, in doses of a grain or two every two or three hours, will generally prove sufficient, and we think it greatly preferable to the rhubarb so generally used. Independent of its cathartic properties, aloes acts directly on the liver, the organ most frequently at fault, and is also a valuable stomachic.

The tonic which we have generally recommended, is a cold infusion of the wild cherry tree bark. The small quantity of prussic acid contained in this bark, doubtless exerts a salutary influence: hence a cold infusion is the best preparation, since this active ingredient would be evaporated by boiling. It

* We have sometimes directed an emetic of lobelia or mustard at the onset of a paroxysm of this disease—and generally with the happiest effect—sometimes preventing its recurrence for several months.—R.

† A physician of our acquaintance, who is addicted to this complaint, mentions that he generally resorts to the Aq. Ammon., in doses of from half a *drachm to a drachm,* and usually experiences speedy relief.—R.

has also to recommend it, its cheapness, abundance, and the ease with which it can be procured.

It will be recollected, that the treatment here recommended is only applicable to cases of sick or nervous headache, and as it would prove decidedly injurious in headaches arising from other causes, it may be proper to notice some of the diagnostic symptoms.

Sick headache generally returns *periodically*, and when we meet with an individual, who has not been subject to its attacks, complaining of his head, this circumstance alone should put us on our guard, and render us more circumspect in the treatment. When it is accompanied with coldness of the extremities, weak pulse, nervous tremors;—when it is relieved by the recumbent posture, or any other circumstance which favors the flow of blood to the head, we prescribe the tonic and anodyne without any hesitation. If, on the contrary, the extremities are unnaturally warm, with a full and strong pulse, —if the skin generally is hot and dry, and the anguish increased by the recumbent posture, it would be but adding fuel to the flame to administer these remedies. We deem it unnecessary to say more on this subject, since the marks which characterize these opposite states of the system are so striking, as to render it scarcely possible for them to be mistaken by persons of ordinary intelligence and observation. In confirmation of the correctness of our views, we might adduce almost innumerable cases, but this we deem unnecessary.—*Ibid.*

---

4. *Over-excitement of the Brain.* By Edward Warren, M.D—The following case is, perhaps, one of little novelty either as to the symptoms or the mode of treatment; but it was interesting to me, both on account of its happy result, and because I deem every thing interesting which relates to disease of the brain—to the mysterious connection between the mind and the body.

On the 20th of January last, I was requested to visit the son of one of my patients, a lad about nine years of age, whom I had previously noticed for his remarkable intelligence and vivacity.

His mother informs me that a few months ago, he was removed from the school he attended to a higher one, where his emulation and love of study were excited in the utmost degree. All his time both at school and at home was spent in hard study. For several weeks past he has appeared listless, dull, and languid, taking no interest in play, and averse to active exercise or exertion of any kind. He is much better, however, in the day than in the night; he cannot distinguish objects by candlelight, and he fancies he sees people who are not in the room, and strange objects of various kinds. His mother thinks his eyes are unusually dull and unnatural in appearance. The pupils, in fact are, largely dilated. His sleep is restless and attended with muttering, and the appearance of great distress. He has occasional headache, no appetite, tongue coated, bowels rather costive. On careful examination of the spinal column, I find no tenderness or other marks of disease.

I ordered him to be kept at home from school and from books, but allowed free exercise in the open air in pleasant weather. To take an emetic of ipecac, and afterwards a pill, nightly, containing a grain and a half blue pill

with a small quantity of opium. A gentle laxative when required. Diet to consist of light farinaceous food.

Jan. 24th. Health somewhat improved. Appetite better, but sleep and nocturnal visions as before.

Apply four European leeches to each temple; rub the back of the neck with antimonial ointment; take fifteen drops of tincture of muriate of iron, daily.

Jan. 26th. Much better. Appetite good. The leeches took away a large quantity of blood, and the pupils almost immediately resumed their natural appearance. Nocturnal visions and bad sleep still continue.

Omit the pills. Take four grains of Dover's powder nightly.

Jan. 31st. Much better during the day. Sight in the evening as before. Sees nothing but a glare of light, and fancies he has leeches all about him. Sleeps better. Continue iron, and use the ointment freely.

Feb. 6th. Perfectly restored to his former health and spirits. Appetite strong. Well in every particular. Wishes to go to school. Directed him to be kept at home a week longer.

This case affords an instance of the manner in which the most interesting children, and those of fairest promise, may be destroyed in the usual course of education, by over-stimulating the brain. Had the disease been allowed to go on, and the lad remained at school a short time longer, he must have fallen into that state of hopeless and complete exhaustion of the nervous and sensorial power, which forms one of the most melancholy spectacles the physician is ever called to witness.—*Boston Medical Magazine, February*, 1835.

---

5. *Case of Dislocation of the Lens in both eyes.* By JOHN WATSON, M.D.—Benjamin Wilcox, a seaman, born in New England, aged 30, has had tremulous irides as long as he can recollect. His sight has always been weak. About ten years ago he received a blow from a rope which brought on inflammation. Since the receipt of the injury, these frequent attacks have materially injured his vision, and for the last seven years this eye has been of little use, although there is still a slight degree of vision yet remaining. The cornea is clouded, and the whole anterior chamber has a dull bluish cast. But what is most singular, is, that when he entered the Hospital, May 20th, 1832, the lens was discovered in the anterior chamber of the aqueous humor, floating before the relaxed and tremulous iris. On the day subsequent to this, no appearance of the displaced lens was to be discovered. For dilating the pupil the eyelids were besmeared with the dilute extract of stramonium, and again on the second day after admission the lens was found floating in front of the iris; it appeared to have lost its translucency. The patient was directed to recline backwards, and in doing so, the lens also fell backwards into its natural situation. Until within a few days of his admission, the patient was ignorant of this condition of his left lens; but he stated that for three and a half years he had had a similar displacement of the lens of the other eye; but at present the right eye is clear, and in every respect appears perfect, with the exception of the tremulous condition of the iris as before noted; yet the patient has very imperfect vision in this organ, for although it is more useful to him than his *left eye*, he has still not sufficient light to distinguish letters even of the *largest print. The lens of* the right eye, as he says, disappeared from the anterior

chamber a few days before he entered, and it has not since fallen forward; according to his own report, he can plainly discover it, apparently like a bright round spot in one corner of the eye. Both irides are nearly immoveable by this impression of light, yet the pupils do contract just sufficiently to be observed when the eyes are suddenly opened. There appeared to be no reason for doubting the patient's statement in relation to his right eye. Thousands, he says, have examined it, and many physicians of New England have taken minutes of his case. They have probably not noticed the like affection of the right eye, owing to the dimness of the cornea. His first notice of this peculiar affection was a severe and sudden pain in the eye while he was stooping forward. On requesting some one near him to look into the eye, he was informed that a little bag of water hung immediately before the sight. He lay down, covered his face with two or three folds of a handkerchief, and all at once the pain subsided and the little bag of water disappeared. Subsequent to this, whenever he stooped, especially if in a dark place, or during a dark day, the lens would fall forward. In clear weather this was not the case, and on cloudy days, if the lens was not down, he could at will displace it, and this he was often induced to do, to satisfy the curiosity of his friends, or of strangers. But while the sun shone, or in a strong light, he could not do this. While the lens is down, there is always pain in the eye. We have tried the effect of convex glasses, and his sight is much better when he wears them. He is a stout, healthy man, and has never suffered from any constitutional disease. He had visited the Eye Infirmary prior to admission, but neither there nor at the Hospital was it considered proper to attempt any operation for his relief.

Note.—For another case of the preceding affection, see Medico-Chirur. April, 1833, page 299, from Damour's.—*United States Medical and Surgical Journal, January*, 1835.

---

6. *The external use of the Iodo-hydrargyrate of Potassium.* By W. C. Wallace, M.D. Surgeon to the New York Institution for the Blind.—After being made acquainted by Dr. Channing with the salt named by him iodo-hydrargyrate of potassium, I prepared a quantity in the way that he has directed. During the process, I happened to wet the points of my fingers with the solution by lifting the plate in which it was evaporated. A few days afterwards, I noticed that the fingers that had been touched were less plump, and the skin was shrivelled apparently from the fat beneath it being partially absorbed. From the nature of the constituents of the salt, and from its great solubility, added to the circumstance noticed, I determined to try its efficacy in promoting the absorption of tumors. I had a case of obstinate ophthalmia tarsi, in which I had been endeavoring to lessen the thickened meibomian glands by external friction with mercurial ointment, which I changed for an ointment composed of ten grains of the new salt and an ounce of lard. This was daily rubbed for about fifteen minutes at a time on the thickened eyelids, care being taken that no part of it touched the conjunctiva. Weak red precipitate ointment to the edges of the eyelids, and a very weak collyrium of corrosive sublimate, which had been effectually used for some time, were continued. In about three weeks the patient was well. Friction with this ointment removed several cholazia, which not being softened by mercurial ointment, I had proposed to extirpate with the knife.

In the proportion of half a drachm of the salt to an ounce of lard, the ointment is very irritating, producing a peculiar herpetic eruption. This preparation has the double advantage of promoting absorption, and of producing counter-irritation. Four cases of ganglia at the wrist, which were all that I had an opportunity of treating in this way, were soon cured.—*Ib.*

7. *Ventricles of the Brain.* By James Macartney, M.D.—It is a generally received opinion that the ventricles of the brain are cavities or hollow spaces containing some liquid. This error has arisen from the common modes of dissecting the brain, which necessarily separate the surfaces of the ventricles from each other. If, however, the dissection be performed without disturbing the natural position of the parts, not the slightest appearance of cavity or interspace presents itself. The sole use of the ventricles, therefore, seems to be merely to gain an extent of surface necessary to the development of the peculiar organization of the brain. Apparently there is less superficies in proportion to the magnitude of the mass of the brain in man than in that of animals; but if we calculate the depth of the surfaces between the convolutions of the cerebrum and on the branches of the arbor vitæ in the cerebellum, together with the internal surfaces, we shall find that the superficies of the human brain is greater in relation to its bulk than that of any other animal. In addition to the surfaces already known, Dr. Macartney has ascertained the existence of ventricles (so called) in the bulb of the olfactory nerves, and in the optic thalami of the human adult brain. In the thalami the distinction of surface is obscure, but in the olfactory tubercles it is sufficiently plain.—*London Medical Gazette*, 1834.

8. *Tumor of the Cerebellum with remarkable course of the symptoms.* By Dr. Abercrombie.—A gentleman, aged 34, in the year 1825, first began to be affected with occasional attacks of headache, which were usually accompanied by vertigo and dimness of sight. In 1827, the pain became more severe, and was distinctly referred to the occiput and upper part of the neck. He had generally a remission of it through the day, and aggravation in the evening. In the spring of 1828, the symptoms increased in severity, but he received considerable relief from blistering. In the summer he went to the country, where his general health was much improved, and the headache greatly mitigated. He continued in this improved state till May, 1829, when the attacks of headache were again aggravated, accompanied by giddiness, and on one occasion he fell from his chair. In October of the same year, he began to be affected with a most distressing sense of throbbing, referred to the back of the head, and he was also annoyed with frequent vomiting, which continued without intermission for three weeks. The paroxysms of headache were now aggravated to an intense degree of severity; they occurred chiefly in the evening, from six o'clock till midnight, but also at other times of the day. During the more severe attacks his face was flushed,—the blood-vessels in the temples were remarkably distended,—and he lay unable to speak, in a state bordering upon total unconsciousness, and with his hands and arms spasmodically contracted. He still had occasional vomiting, and intense acidity of the stomach,—and several times he mentioned double vision. His pulse was *generally* natural; bowels very obstinate.

His state was now considered as nearly hopeless; and no relief was obtained from any kind of treatment. But after five or six weeks of the most intense suffering, the symptoms gradually remitted, and during several weeks in December and January, he continued almost free from headache,—he was able to walk out, and his general health was greatly improved. In February, 1830, the symptoms again increased, but the pain was now chiefly complained of above the eyes. The remissions also were more complete, and, upon the whole, his sufferings were less severe than during the former attack. In March his complaints again subsided; and he was able to take a good deal of exercise in the open air, and even to attend to his business. He had still occasional attacks of headache, but they were not severe, and his condition was considered as much more favorable than it had been for a long time. In the middle of April the paroxysms of headache became more severe, but by no means in the degree in which they had occurred on former occasions. He was not confined, and no degree of apprehension was excited until the 24th, when, in one of the paroxysms, he suddenly expired.

Inspection.—The ventricles of the brain contained from three to four ounces of limpid fluid, but the cerebral substance was entirely healthy. Imbedded in the left lobe of the *cerebellum*, there was a tumor, the shape and size of a very small walnut. Externally it was firm, and presented the usual appearance of the scrofulous tubercle. Internally it was softened, with the usual appearance of unhealthy scrofulous suppuration. The substance of the *cerebellum* around it was entirely healthy. All the other viscera were sound.

It is unnecessary to point out the remarkable features presented by this case—the extraordinary remission in the symptoms, the periodical character of the paroxysms even at the time of their most intense severity,—the long interval of comparative health which preceded the final attack,—and the very sudden nature of the fatal termination,—we may add, the healthy state of the whole cerebral substance, after such protracted suffering.—*Edinburgh Med. and Sur. Journal, Oct.* 1834.

---

9. *Opium in Peritonitis.*—Dr. G. Hamilton says he has frequently had occasion to verify the remark he has heard made by Dr. Alison, that in peritonitis, opiates are often the best purgatives.—evidently because they subdue the inflammation, and allow the bowels to resume their accustomed action.*—*Edinburgh Med. and Surg. Journal, October*, 1834.

---

10. *Arsenic in Cutaneous Diseases.* By JOHN TWAITS, M.D.—The chief inquiry now before us is, at what period of the disease, and under what circumstances, may this medicine be used; and when should it be withheld? The reply, as far as I am capable of giving it, shall be as concise as I can make it. In the forms of cutaneous disease in which the practitioner may feel disposed to employ it, the most favorable time for its exhibition is the latter stages, when the violence of the attack is subdued either by extensive depletion, or by the exhausting efforts of time. In recent affections, its use must be deprecated. In cases where there may exist thoracic or cerebral disease, it is highly dangerous, until these have been completely subdued. Its beneficial effects are most speedily perceptible in that class of skin disease

* On this subject, see also Gooch on the Diseases of Females.

which resolves itself most speedily, *i. e.* where the local inflammation most speedily terminates in the cutaneous deposition.

It may be asked, how is it that arsenic is so useful? Setting aside its specific powers, which some assert that it possesses, it appears to me to act in a very simple as well as effectual way. It may be considered, that in all parts where inflammation existed, upon the resolution of that state, there is left behind a degree of consequent debility. This is always proportioned to the extent of disease. When, therefore, we have a large surface of inflammation, as in the majority of cutaneous diseases, we must calculate upon the corresponding reduction, not only in the powers of the constitution, but in the vital energy of *the parts attacked.* Upon the removal of the disease, such means, therefore, must be employed as will restore the strength of the system, and yet not over stimulate. We have this remedy fully within our reach here; as, by the command which we possess over its exhibition, we can regulate it at pleasure. There is no occasion for overloading the digestive organs with a quantity of medicine, and consequently aggravating the evil, as in the use of the decoction of sarsaparilla, infusion of bark in lime-water, and various other remedies, which by their quantity annihilate their own beneficial properties. The tone which the stomach receives by the application of this medicine is communicated to the external surface, while a stimulus is given to the heart's action, which gives it an *equalized* and healthy energy, tending considerably to promote the advancement of general health. May not this stimulus be likewise communicated to the absorbent system, and then produce a species of operation mainly contributing to the cure?—*Ibid.*

---

11. *Dyspnœa.* By Thomas Davies, M.D.—What is the value of the sign of dyspnœa? In one sense it has no value; in another it is of the highest importance. Dyspnœa will never determine what is the nature of the lesion; it will not determine whether the lungs be affected, or the heart, for you see it is common to them both; it is common to every disease of the lungs, and to a certain extent to every disease of the heart; and therefore it is an *equivocal* sign;—nay, it even occurs in diseases that are placed out of the cavity of the chest—in dropsy, and even in pregnancy, and therefore I say it is of no value in determining a specific lesion. But it is of the highest importance in a practical point of view, in determining the degree of the loss of equilibrium, and therefore gives the most valuable indications.—*London Medical Gazette, November,* 1834.

---

12. *Case of Exanthema and Narcotism, from the external application of Hops.* By John Badham, M.D.—Mary Bell, æt. 14, and of a healthy habit of body, applied for advice, on the 26th of September last, for symptoms which, although on the decline, appeared to me even then of a sufficiently interesting character to deserve being detailed in my case-book; and as I have not been able to find a case of the kind recorded by any author, English or foreign, I shall be glad to hear whether any of your correspondents have, in the course of their practice, met with a similar one. This little girl had been *engaged in hop-picking* for a week, during which she was in the enjoyment *of perfect health.*

On the morning of the 24th, there being a sharp frost at the time, her *hands became chapped,* and she put them into the hop-bin to warm them.

Shortly after this, she began to feel a tingling or smarting sensation in the hands, as if she had been stung by nettles; and having frequent occasion to pass her hands over her forehead, to arrange her hair, the face became similarly affected. In a few hours afterwards, a distinct cuticular efflorescence appeared, accompanied with a strong disposition to sleep. When taken home, the feeling of somnolency was such as to require the constant vigilance of the family to keep her awake. Her vision was so much impaired that she could not distinguish between objects the most dissimilar; a plate of eels, for instance, appeared like mushrooms. Towards evening all efforts at rousing her attention failed, and she fell into a profound slumber. In the morning her face was covered with a deep erythema, and had swelled extensively; her eyes were quite closed by the tumefaction of the eyelids. She slept substantially through the whole of that day, but once or twice complained of pain in the forehead. Opening medicines were administered, but failed in procuring a stool. On the evening of this day the hands and face were literally covered with vesicles, some of considerable, some of lesser size, which, continuing to grow larger, at length began to burst, first in the hands, then in the face. After this a considerable mitigation in all the symptoms took place; the face became reduced in size, and a healthy desquamation soon followed. The eyes, which had suffered from the attack, though less inflamed, were still red, on the fourth day, when she presented herself to me; and there was also an appearance of *small scales* on the face and forehead; elsewhere the desquamation was general; the erythema was dying away, but a thin ichorous discharge kept oozing from small abraded patches between the fingers. She still had headache, and appeared heavy, but was evidently convalescing without medicine: however, as her bowels were confined, I gave her saline purgatives, with the addition of a little nitre and sulphur, and ordered the hands to be dusted with some absorbent powder. These means; with the additional aid of a dose of calomel and colocynth, completed the cure which had already been commenced by nature.

The interest of this case appears to consist, first, in its appearing to prove the physiological fact of cutaneous absorption; and, secondly, because it discovers a new and hitherto unsuspected acrid principle in the hop.—*Ib.*

---

13. *Experiments relative to the Sense of Taste.* By Mr. Noble.—Mrs. Williams, about 50 years of age, 22, Pot street, Ancotas, Manchester, states, that some years ago she had two or three leeches applied to the left temple, near the outer canthus of the left eye, when, in a day or two afterwards, violent neuralgic pains ensued upon the left half of the face; these gradually subsided, and left almost complete amaurosis, and paralysis of sensation on the affected side of the head and face, as supplied by the branches of the fifth nerve; the function of voluntary motion remaining perfect as before. In this state she continues at the present time.

There is a peculiarity in this case to which I would particularly allude, in the fact of the sense of taste being unimpaired in the left half of the tongue, whilst its common sensibility is all but destroyed. The impressions of common tact, of pain, of the rough or the smooth, of heat or of cold, she is all but insensible; whilst to impressions of the bitter or the sweet, or any other *modification* of the sense of taste, she is as acutely alive on the affected as on

the sound half of the tongue. For example, if she be blindfolded, and directed to protrude the tongue, and the blade of a knife be placed upon the lingual surface traversely, she feels it only on the sound side, or at least her perception on the affected side is of the most obscure description, being, as she words it, a "numb, dead feel." A portion of the mucous membrane on the affected side was lacerated with a point of a lancet, and she felt not the slighest pain—all, in her own words, being "numb and dead." The blade of a knife was introduced into hot water, and then placed traversely upon the tongue: she had only the perception of heat on the sound side. Small portions of common salt were sprinkled upon the affected side, and similar quantities of sugar on the other: she was insensible to the fall of the particles on the affected side. In a few seconds, however, when the sapid particles had partially dissolved, she was as acutely alive to the saline taste on the affected half as to the saccharine on the other; and the sensation of taste was excited at the same distance of time from the first contact of the sapid ingredient on both sides of the tongue. These experiments were modified in a variety of ways, the woman always being blindfolded, and in ignorance of the exact procedure, or its intention; and in whatever way the trial was varied, it was obvious that whilst the common sensation of one half of the tongue was in effect annihilated, the sense of taste was unimpaired.

Does not the above case decide that taste is something more than a modification of common sensation? And if so, must it not, as in the case of smell, be dependent upon a specific nervous supply? And as a variety of facts shew clearly that the "true gustatory nerve" conveys both common and specific sensibility to the tongue, must it not be a compound nerve?

What is the function of the nerve from Meckel's ganglion, called *chorda tympani*, which joins the branch that goes to the tongue from the Gasserian ganglion?—of which nerve that distinguished neurologist, Mr. Swan, observes, "it is supposed that the chord of the tympanum does not unite with the gustatory, but passes in mere contact with this; but if a preparation that has been kept in spirits be carefully examined with a magnifying glass, and at the same time an attempt be made to disunite these nerves, it will be found that the filaments of both are intermixed, and cannot be separated without violence."

And in conclusion,—what is the function of the branches from Meckel's ganglion distributed to the soft palate?—*Ib.*

---

14. *Radical cure of Hernia in Infants.*—M. Meynier adopts the following treatment for the cure of umbilical hernia in new-born infants.—After returning the hernia he retains it with one or two fingers, and applies a square piece of spread diachylon plaster larger than the tumor. Over this is put a small thick compress, which is secured by a long strap of the same plaster. The middle of this strap is fixed on the compress and its heads passed twice or three times round the body to enclose the hernia completely. The first dressing may remain on six weeks. *M. Meynier* has sometimes found a single application of it complete a cure. It is occasionally necessary to renew the dressing twice, seldom three times.—*Journal des Connaissances Medico-Chirurgical, Decembre,* 1834.

15. *Larvæ of Flies passed alive from the Bladder.*—An individual completely paralyzed, by an affection of the spinal marrow, passed with his urine a large quantity of larvæ. Dr. Wolff, the reporter of the fact, satisfied himself there was no deception. On a *post mortem* examination, forty-eight hours after death the bladder was found healthy. There was no abscess, no fistulous passage. Schrader and Bremser have described analogous cases.—*Medizinche Zeitung.—Journal des Connaissances Med. Chirur. Août*, 1834.

16. *Extract of Belladona as an external application for irreducible Hernia.* M. Jofere reports a distressing case of strangulated inguinal hernia which he relieved by this means, after failing with taxis. The neck of the tumor was rubbed with the extract diluted with a little water. In less than an hour and a half the relaxation produced by the belladona was such that the hernia was easily reduced. M. Jofere recommends this article as an application for facial neuralgia, and spasms, accompanied with pains, of the epigastrium and hypochondrium.—*Journal des Connaissances Med. Chir. Août*, 1834.

17. *Displacement of one of the semilunar Cartilages of the Knee-Joint.*—Dr. Reid exhibited a specimen of displacement which seemed to correspond to the affection of the knee-joint described by Mr. Hey, under the title of Internal Derangement of the Knee-Joint, and by Sir Astley Cooper, in his Surgical Essays, under that of Partial Luxation of the Thigh-Bone, from the Semilunar Cartilages; but no dissections are given by either of these two surgeons.

The fibrous tissue connecting the outer margin of the external semilunar cartilage to the edge of the head of the tibia was torn through in its anterior half, and the semilunar cartilage was found thrown inwards and backwards, and placed between the spine of the tibia, posterior crucial ligament, and posterior ligament of Winslow. The transverse ligament was entire. The cartilage itself was considerably flattened and broader, and the remaining portion of the fibrous tissue, connecting its outer margin to the tibia, was much thickened, and had assumed somewhat of a fibro-cartilaginous appearance. The cartilage of incrustation on the anterior part of the tibia, which had been exposed to the free motion of the condyle of the femur, had become rough. The motions of the articulations seemed sufficiently free, as far as could be judged of in the dead body; but it can easily be perceived that when the connecting parts are less extensively torn than in the present case, or when the posterior ligament has been rendered tense by the action of the muscles in walking, that the cartilage may be forced between the condyle and spine of the tibia, producing the same effects as the presence of a loose cartilage within the the joint. The history of the case could not be traced. The man died in the Infirmary, and while there never complained of his knee, nor did the nurse remember to have observed any limp in his walk.—*Report of Cases communicated to the Anatomical Society of Edinburgh.*

Notices and Acknowledgments.

We take this opportunity to inform Dr. Pearson, that his communication will be thankfully received. *Medicus Marylandicus* we must decline. The evil is a deep one, but is only remediable by time; any thing we could publish through our pages would only increase it.

We have to acknowledge the following works for the month:

The American Cyclopedia of Practical Medicine and Surgery, a digest of Medical Literature, Part VI. edited by Isaac Hays, M.D. Surgeon to Wills' Hospital, &c. Philadelphia, Carey, Lea and Blanchard, January, 1835.—(*From the publishers.*)

The high character which this work has already established, is fully sustained in the present number. We shall notice it in our next.

Introductory Lecture on the Climate and Salubrity of New Orleans, and its suitability for a Medical School. By Edward H. Barton, M.D. Professor of Materia Medica, Therapeutics and Hygiène. Published at the request of the Faculty. (From the author.) *An able lecture, containing much valuable information.*

A Catalogue of the Officers and Students of Dartmouth College, Oct. 1834.

Journal des Connaissances Medico-Chirurgicales, for Janvier, 1835. (In exchange.)

The American Journal of the Medical Sciences, for February, 1835. (In exchange.)

The Boston Medical Magazine, Nos. XIII and XIV. for February, 1835. (In exchange.)

The Boston Medical and Surgical Journal, Nos. 2 & 3, for February, 1835. (In exchange.)

The United States Medical and Surgical Journal, for February, 1835. (In exchange.)

The Western Journal of Medical and Physical Sciences, for January, 1835. (In exchange.)

The Western Medical Gazette, for January, 1835. (In exchange.)

A Short Account of the occurrences which led to the removal of Dr. John Redman Coxe, from the chair of Materia Medica and Pharmacy, in the University of Pennsylvania. (From the author.)

☞ *The title page* and index of the first volume, which this number *completes, will be published* with our next.

INDEX.

Abstinence in the treatment of intermittent fever, 323.
Acarus Scabei, 292.
Aconitine, 76.
Aconitum Napellus in acute rheumatism, 214.
Air, action of rarified, upon the surface of the body, 370.—Its introduction into the veins, 300.
Ammonia muriata, in phthisis, 299.
Amputation of the leg, 377.
Amputation of the foot by Chopart's method, 195.
Anastomosis between the vena portæ and vena cava, 65.
Andral's homœopathic experiments, 443.
Anæmia, two cases of, by the Editor, 39.
Aneurism of the hepatic artery, Stokes' case of, 217.
Anomalies, Baker's cases of, 306.
Anus, fistula of, treated by compression, 76.
Aorta, ligature of, 297.—Ossification of, mistaken for aneurism of the heart, 72.—Obliteration of, 155.—Constriction of, 158.
Apoplexy from repletion of the stomach, 307.—Cases of, by the Editor, 91.
Arsenic in cutaneous diseases, 451.
Artemisia vulgaris in convulsions of children, 296.
Ascherson's cases of congenital fistulæ of the neck, 211.
Asthma, sulphuret of potash in, 156.
Astragalus, excision of, 83.
Atropine, 76.

Baer's case of intussusception, 42.
Baker's account of anatomical anomalies, 306.—Case of destruction of the gall-bladder, 307.—Introductory lecture, 303. Case of tuberculous degeneration of the liver with perforation of the cæcum, 193.
Baltimore Infirmary, clinical bulletin of, 5.
Bandage, remarks on, 85.
Bayly's case of obliteration of the gall-bladder, 396.
Beau's case of reunion of the thumb, 204.
Beck's manual of chemistry, 321.
Belladonna applied externally in irreducible hernia, 455.
Betula alba in chronic rheumatism, 69.
Biermann on artemisia vulgaris, 296.
Bladder, larvæ of flies passed alive from, 455.
Bland on the use of common soot, 215.
Blood, globules of, 153.—Nucleus of, 154.
Bones, remarkable softening of, 67.
Bossengault on the matter of miasms, 371.
Bostock on the morbid states of the urine, 406.
Brain, over-excitement of, 447.—Ventricles of, 450.
Brain and nerves, structure of, 151.
Breasts, irregular formation of, by Tiedemann, 66.
Breschet and Roussil on the structure of the skin, 73.
Buboes, indolent, treated with tart. emetic ointment, 70.—Treated by compression, 291.
Burns treated by yellow wash, 337.

Cancer of the diploë, 159.
Cancer, its liabilities to recur, how it may be overcome, 197.
Cavaillon on the preservation of leeches, 213.
Carbutt's clinical lectures, 213.
Cardialgia relieved by nux vomica, 323.
Caries and necrosis of the femur, 196.
Cartilages, displacement of the semilunar, 455.
Catalepsy, McComb's case of, 368.
Cerebellum, tumor of, 450.
Cerebral œdema in the insane, 213.
Chevalier on a substance analogous to musk in urine, 451.
Chew's case of spontaneous salivation, 393.
Clinical reports, by the Editor, 396.
Clinical lectures, by E. Carbutt, 313.
Chlorine lotions in variola, &c. 217.
Cholera, 232.
Clot of the heart, injection of, 367.
Codeine, 74.
Colchicine, 74.
Cæcum, perforation of, 193.
Cold affusion in fever, 16.
Coldify Dorley's easy process for preparing mercurial ointment, 299.
Copper, sulphate of, in croup, 159.—In chronic diarrhœa, 219.
Corrrosive sublimate in ophthalmia, 212.
Coxe's inquiry into the claims of Dr. Harvey, 64.
Cranium, hypertrophy of, 70.
Creosote in diabetes mellitus, 66.
Croup, sulphate of copper in, 159.
Cutaneous diseases, arsenic in, 451.
Cyanide of gold in syphilis, 213.

Daturine, 74.
Defensor, his strictures on Jefferson Med. College, 77.
Dewees, Dr. elected professor of midwifery, 160.
Diabetes mellitus cured with creosote, 66.
Diploë, cancer of, 159.
District Medical societies, 375.
Donaldson, Dr. Wm. obituary notice of, 374.
Donne on the chemical properties of the secretions, 72.
Dunglison's Elements of Hygiène, 431.
Dupuytren on corrosive sublimate in ophthalmia, 212.—On amputation of the foot, 195.—On caries and necrosis of the lower end of the femur, 196.—Tumefaction of the cellular tissue of the eyelid, 197.—Cancer of the lip and the re-development of cancer, 197.—Nervous pregnancy, 200.—Mucous discharge from the vagina of children, 201.
Dysentery, note on, by the Editor, 123.
Dyspnœa, 452.

Ear, re-union of, after it had been completely severed, 292.
Eberle's Materia Medica and Therapeutics, 210.—On the polyganum hydropiperoides as an emenagogue, 221.—On iodine in lucorrhœa, 218.—On sulph. cupri in chronic diarrhœa, 219.
Ehrenburg on the structure of the brain and nerves, 151.
Eisenmann on chloride lotions in variola, &c. 217.
Electricity in medicine, 299.
Emphysema, gangrenous, treatment of, 364.
Episoraphy, a new operation for prolapsus uteri, 157.
Epistaxis, new method of plugging the nostrils in, 67
Excerpts fiom the case book of the Editor, 31.
Exostosis of the femur, operation for, 34.
Eyelids, tumefaction of, 197.

Femur, luxation of, without laceration of the round ligament, 367.
Fever, gastric, 7.—Pathology of, 308.
Fish bones entering the uterus, 157.
Fistulæ, congenital of the anterior part of the neck, 211.
Fistula in ano treated by compression, 76.—Stercoral extending through the sacrum, 367.
Foot, amputation of, 195.
French pill, 231.
Fricke's method of effecting a radical cure of varicocele, 364.—New operation for prolapsus uteri, 157.
Fris' case of wound of the heart, 291.
Fungus hæmatodes, Smith's case of, 37.
Fungus of the periosteum, 367.

Gall bladder, obliteration of, 396.—*Destruction of*, 307.
Gall stones, passage of, into the small intestines, 373.
Galvanism in neuralgia, 75.
Ganglia of the spinal nerves sometimes double, 366.
Gastric fever, Geddings on, 7.
Gastro-duodenitis chronic, 245, 310.
Geddings on an ointment for hemorrhoidal tumors, 44.—Two cases of Anæmia, 39.—On chronic gastro-duodenitis, 245, 310.—Cases Apoplexy, 91.—Of Tetanus, with remarks, 99.—Case of disease of the spinal marrow, 110.—Case of ovarian tumor, 113.—Reflections on Dr. Greetham's case of ovarian tumor, 116.—Note on dysentery, and on the use of nux vomica in that disease, 123.—Clinical bulletin of the Baltimore Infirmary, 5.—Clinical observations on gastric fever, 7.—Operation for the restoration of the urethra, 31.—Paracentisis vesicæ, 31.—Operation for necrosis of the femur, 34.—Extirpation of the three first metatarsal bones, 36.
Genital organs of children, mucous discharge from, 201.
Gold, cyanide in syphilis, 213.
Gonorrhœa and syphilis, identity of, 294.
Graves' case of the total loss of the sense of smell, 220.—On albuminous urine in dropsy, 371.
Greetham's case of ovarian tumor containing a bone and teeth, 114.

Harris on the treatment of neuralgia, 75.
Hay's cyclopedia of practical medicine, 143.
Hœmatemesis, Thomas' case of, 403.
Headache, Houston's remarks on, 445.
Heart, foreign body in, 68.—Hypertrophy of 362.—Wound of, survival ten days, 291.
Hemorrhoids, ointment for, 44
Hepatic artery, aneurism of, 217.
Hernia in infants, radical cure of, 454.—Dr. Colliex's method of operating for, 71.
Herpes preputialis, Biett's method of treating it, 214.
Heilbut's analysis of menstrual blood, 150.
Hintze on burns, 337.—Case of ovarian cyst, 111.
Homœopathic experiments, 443.
Hops applied externally, producing exanthema and narcotism, 452.
Houston on sick headache, 445.
Hufeland on the identity of gonorrhea and syphilis, 296.
Hydatids of the kidney, passed by the urethra, 301.
Hydrocele of the neck, 276.
Hygiène, Dunglison's elements of, 431.—Pills, 223.
Hyoscyamine, 74.
Hypertrophy of the cranium, 70.

Idiosyncrasy, singular case of, 341.
Imperforate vagina, 221.
Intermittent, case of the octan type, 216.

Intermittent fever cured by abstinence, 323.
Intestines perforated by gall stones, 373.
Intussusceptio, spontaneous cure of, 150.—Baer's case of, 42.
Iodine in leucorrhœa, 218.
Iodo-hydrargyrate of Potassium, external use of, 449.
Iron, Ioduret and hydriodate of, 364.
Itch insect, 292.

Jaundice, cure of, 400.
Jefferson medical college, 77.
Joerg de morbo pulmonum ex respiratione neonatorum imperfecta orto, 55.
Junod on the action of rarified air on the surface of the body, 370.

Kermes mineral, improved process for the preparation of, 70.
Kidney, hydatids of, passed by the urethra, 301.—With double ureter, Lauth's case of, 211.
Knee joint, displacement of the cartilage of, 455.
Kreosote, chemical and medical researches on, 422.

Lancet, spring, accidents from bleeding with, 181.
Larvæ of flies passed from the bladder, 455.
Lead, acetate and opium in pneumonia, 301.
Lebby's case of apoplexy from repletion of the stomach, 307.—Of a watery tumor of the scalp, 309.
Leeches, preservation of, 213.
Lens, dislocation of, in both eyes, 448.
Leucorrhœa, iodine in, 218.
Library of medical sciences, 143.
Lithiasis with mortification of the glans penis, 174.
Lithotomy—see Smith.—Extraction of a large stone, 177.
Liver, tubercle of, 193.—Wound of, 385.
Logan and Ogier's operative surgery, 148.
Lombard on aconitum in rheumatism, 214.
London University, 303.
Longevity, case of, 69.
Lungs of new born infants, induration of, 55.
Lymphatics in the umbilical cord, 66.

Mackall's case of salivation, 244.
Mansford's galvanic plates, 75.
Manslaughter by the use of Morrison's pills, Webb's trial for, 228.
Mariani's case of reunion of the ear, 292.
Mastic for stuffing teeth, 371.
M'Cartney on the ventricles of the brain, 450.
M'Comb's case of catalepsy, 368.
M'Dowell's case of a singular idiosyncrasy, 341.—On the muscularity of the uterus, 272.
Meckel's case of obliteration of the aorta, 155.
Medico-chirurgical society of Baltimore, tribute of, to the memory of Dr. Donaldson, 374.
Menstrual blood, analysis of, 150.
Mercury, Sach's treatise on, 137, 205.
Mercurial ointment, mode of preparation, 299.
Metatarsal bones, extirpation of, 36.
Miasms, matter of, 371.
Miguet on kreosote, 422.
Monstrosity by inclusion, 323.
Muco-peritonitis, Healey's case of, 398.
Murray's case of ligature of the aorta, 297.
Muscularity of the human uterus, 272.

Nerves, structure of, 152.
Nervous system, pathology of, 91.
Neuralgia treated by galvanism, 75.
Neurosis, new species of, 301.
Nipples, chapped, prophylactic against, 291.
Nixon's case of constriction of the aorta, 158.
Noble's experiments on the sense of taste, 453.
Nostrils, new method of plugging, 67.
Nux vomica in cardialgia, 323.—In dysentery, 123.

O'Bierne on hydrocele of the neck, 276.
Ogier and Logan's compend of operative surgery, 148.
Ointment for hemorrhoidal tumors, 44.
Omentum, steatomatous tumor of, extirpated, 157.
Operative surgery, compend of, by Ogier and Logan, 148.
Ophthalmia, corrosive sublimate in, 212.
Opium in peritonitis, 451.
Ovarium, pilous transformation of, 307.
Ovarian pathology, 111.—Cyst, containing twenty-three gallons of fluid, 111.—Tumor terminating in suppuration, 113.—Containing a bone and five molar teeth, 114.

Painters' colic, Stokes' lecture on, 45, 129.
Paralysis cured by the local application of strychnine, 386.
Pectoral powder, 156.
Pelvis, inflammation of the symphisis of, 363.
Periosteum, fungus tumor of, 367.
Peritonitis, opium in, 451.
Peronne's case of a testicle containing teeth, 323.
Petruni's case of symphiseotomy, 369.
Phlegmasia cærulea dolens, 367.
Phosphoric acid in syphilis, 156.
Pilous transformation of the ovarium, 307.
Pinel on cerebral œdema in the insane, 213.
Pittschaft's case of unequal dilatation of the pupils, 362.—Method of treating scrofula, 69.
Placenta and uterus, tubercles of, 363.
Pneumonia, acetate of lead and opium in, 301.
Poisoning with salmon, 222.
Polyganum hydropiperoides, 221.
Polypus of the nose treated with sulphate of zinc, 366.

thma, 156.
i of gold in syphilis,

0.
297.
se of, 70.
in a girl aged ten

ication of, 72.
on of, 362.
1 and Moat, 223.

nosis outside of the

ıfter it had been en-

ifurcated umbilical

cured by surround-
green leaves of the

ıcture of the spine,

ture pregnancy, 220.

ury, 137, 205.
inistration of iodine,
323.
, 222.
1 the skin, 366.

307.
1 intermittent, 216.
y Dr. Pittschaft, 69.
ies of neurosis, 301.
rforate vagina, 221.
from, 366.—Struc-

roperties of, 72.
ntense odor, 220.
ty of the uterus de-

loraphy, 27.—Case
ondary hemorrhage,
he brachial artery,
aneurism, *ib.*—Sur-
remarks, 81, 174.—
te of the spermatic
ia, 81.—Excision of
Clinical remarks on
ge, 85.—Scissors for
ısils, 88.—On acci-
with the spring lan-
ricture of the urethra
85.—Case of lithia-
n of the glans penis,
, stone of unusual
wound of the liver,
applied locally in
ıverted toe-nail, 388.
s hæmatodes, 37.—
ion of the leg, 377.
67.
creosote, 215.
state of, 81.

s' observations, 388.
ylia of, 366.—Cord,

intersection of one half of, 110.—irritation, Walkers' case of, 445.
Staphyloraphy, Smith on, 27.—New instrument for, 28.
Stercoral fistula extending through the sacrum, 367.
Stokes' lecture on the pathology of fevers, 308.—On painters' colic, 45, 129.—Case of phlegmasia cœrulea dolens, 367.
Strahl's prophylactic against chapped nipples, 291.
Stricture of the urethra simulating lithiasis, 185.
Strychnine applied locally in paralysis, 386.
Syphilis treated with phosphoric acid, 156.
Symphiseotomy, 369.

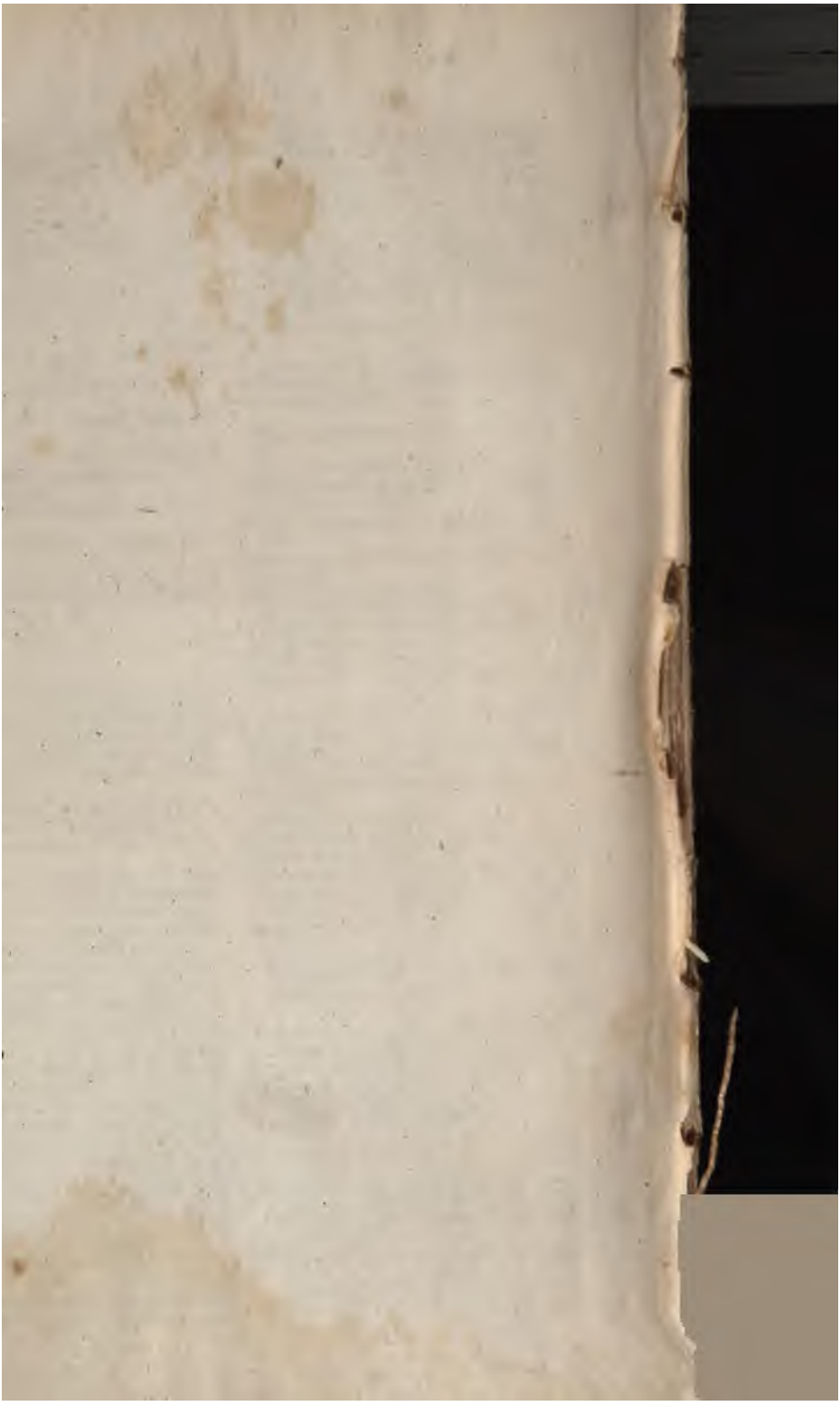
Tartar emetic ointment in indolent buboes, 70.
Taste, experiments on, 453.
Tetanus, cases of, by the Editor, 99.—Cured by prussic acid, 297.
Thomas' observations on spinal irritation, 188.
Thomson on the ioduret and hydriodate of iron, 364.
Toe-nail, inversion of, 388.
Tonsils, scissors for the removal of, 88.
Trivigno, cold douche to the hypogastrium in uterine hemorrhage, 361.
Tross' pectoral powder, 156.
Tubercles of the uterus and placenta, 363.

Ulrick's case of sudden death from the introduction of air into the veins, 300.
Umbilical cord, lymphatics of, 66.—Case in which it was bifurcated, 305.
United States Medical and Surgical Journal, 232.
Universal medicines, 223.
Urine, albuminous, in dropsy, 371.
Ureter, double, case of, 211.
Urethra, operation for the restoration of, 31.
Urine, morbid states of, 406.—Substance analogous to musk in, 421.
Uterine hemorrhage treated by cold douche, 361.
Uterus, prolapsus of, cured by an operation, 157.—Muscularity of, denied, 161.—And placenta, tubercles of, 363.

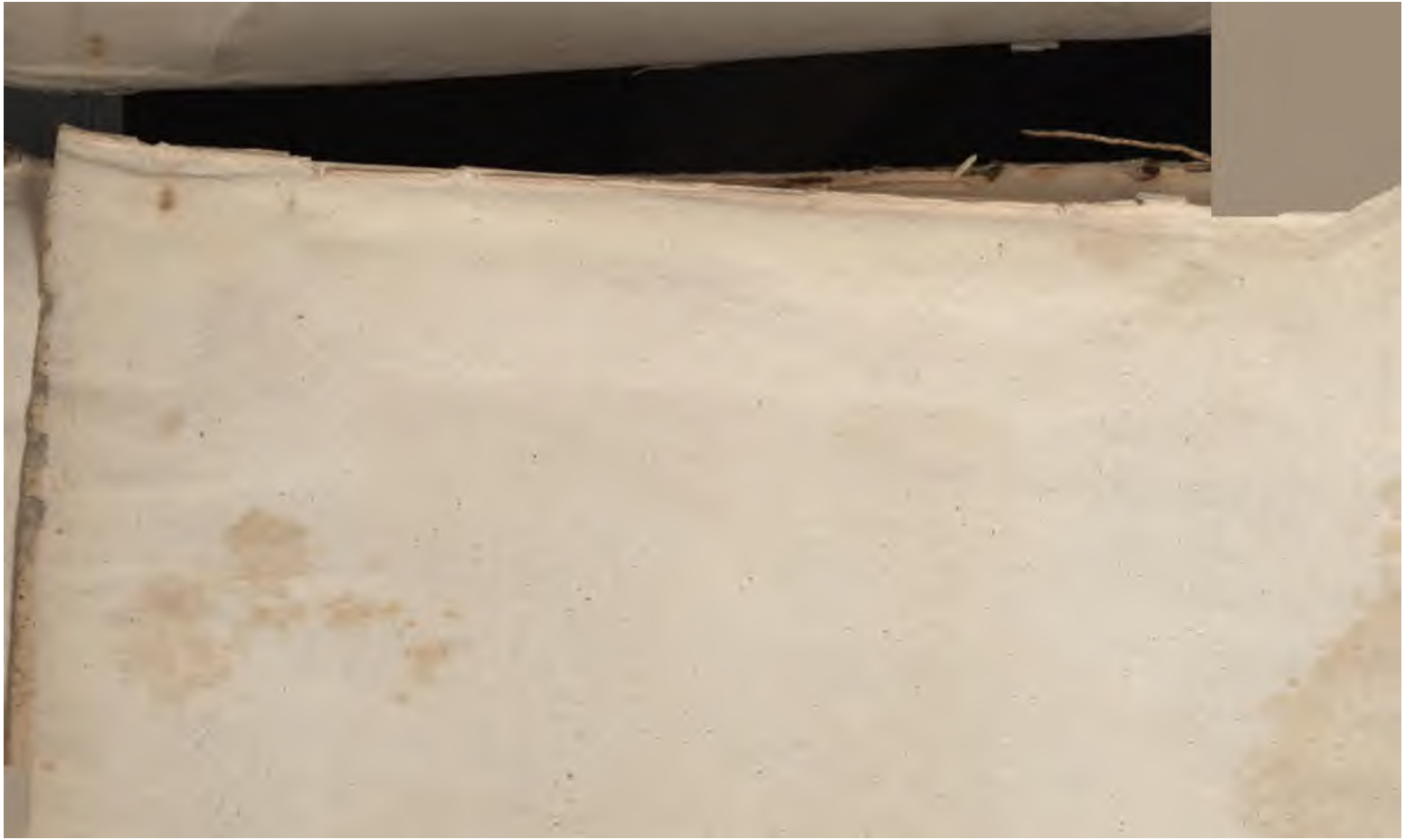
Vagina, varicose tumor ruptured within, 67.—Imperforate, 221.
Varicose tumor ruptured in the vagina, 67.
Varicocele, radical cure of, 364.
Veins, introduction of air into, 300.
Vena porta, obliteration of, 363.

Wagner on the globules of the human blood, 153.
Warner, Dr. Augustus L. elected professor of anatomy, physiology and surgery in the University of Virginia, 80.—Introductory lecture, 232.
White's enema and cupping apparatus, 303.

Yellow wash in burns, 337.



A 413884



UNIVERSITY OF MICHIGAN
3 9015 06275 1949